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Prep Equipment For Exit

Dealing With Unused Equipment Brings A Host Of Concerns, Tasks

by Christian Perry

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IN THE DATA CENTER, death and taxes aren't inevitable, but unused equipment is. In fact, at one point or another, nearly every piece of equipment will outlive its usefulness, assuming it was ever useful in the first place. When it stretches beyond this point, equipment begins to consume valuable floor space and can even drain an enterprise's bottom line as its value continues to decrease over time.

"Everything in the data center is eventually going to become in excess—usually because it is a piece of equipment that is no longer up to par with the latest advances in IT," says Steve Hyser, asset management business manager at Canvas Systems (www.canvassystems.com). "Usually, in three to five years, most businesses have to upgrade to the latest and greatest to keep up with the competition."

Although most SMEs accumulate unused equipment that covers nearly every area of IT, experts are quick to point to multiple usual suspects: servers, server racks, uninterruptible power systems, routers, HVAC syst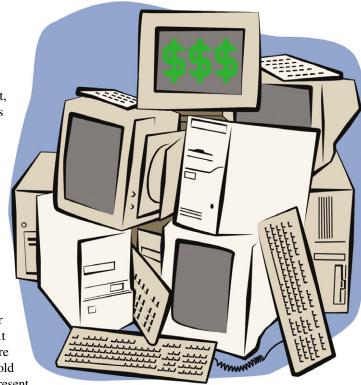ems, KVM switches, storage devices, SAN and NAS equipment, and power supplies. As this equipment becomes expendable, SMEs face the challenge of efficiently removing it from the data center.

Look For New Life

According to Hyser, all data center equipment can be reused, but what that reuse entails depends on a company's definition of reuse. For example, he says that equipment that's no more than three or four years old can often be used in its present form and therefore can be sold for value. Companies can reuse some equipment, but it might take on a different task than what it's currently being used for (such as a server being reused as a storage array).

By doing a little research with different company departments, an IT department might discover that an unused piece of equipment in one department might function as a useful device elsewhere. John Mallery, a managing consultant with BKD Forensics and Dispute Consulting (www.bkd.com), says that unused equipment can also be used to construct a test network. "While older

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Make It Difficult For Intruders

Slow Them Down & Sniff Them Out

by David Geer

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ENTERPRISES MAKE EVERY EFFORT to deal with increasing threats, but attackers are relentless. "At some point, an intruder will access the network," says Randy Abrams, director of technical education at ESET (www.eset.com), a security software vendor.

Strong Passwords

To stall intruders' efforts, companies should use strong passwords, which are hard to figure out because of their length, complexity, or both. When passwords are too complex, employees often write them down and paste them on their monitors to remember them, according to Dan Simon, senior application security specialist at Halock Security Labs (www.halock.com), a full-service security risk consulting firm. Posting passwords in plain sight, however, can reveal them to intruders who enter from within.

A 20-character password with all lowercase letters is stronger than an eight-character password with letters, numbers, and other characters in both uppercase and lowercase, according to Abrams. "Use long, easy-to-remember passwords made of sentences," says Abrams, a former security expert with Microsoft. This facilitates passwords that are hard to guess but easy for employees to remember.

Passwords should also be set to expire periodically so that old passwords become useless by the time talented intruders figure them out. Administrators can set things up so that once the current password has expired, employees must change passwords before they can log in again, according to Tom Turner, vice president of marketing at Q1 Labs (www.q1labs.com).

Authentication Procedures

Authentication helps to prove that a user is genuine. Today, there is two-factor

> **To stall intruders' efforts, companies should use strong passwords.**

■ The VPN-1 Power Multi-core from **Check Point Software Technologies** is a new gateway that promises processing speeds of up to 5.3Mbps. ■ **GFI** announced the release of GFI MailArchiver 5 for Exchange, the company's email management and archiving software. ■ **NetApp** announced two new switches to aid in storage networking. ■ **Network Instruments** announced Link Analyst 5, which provides performance reporting, monitors network components, and includes tools for infrastructure availability. ■ **RLE Technologies** announced F1000 and F3400, standalone Falcon F-Series systems that enable the remote environmental monitoring of critical operating parameters via embedded firmware. ■ **StarTech** is targeting its SV1115IPEXT Server Remote Control, a KVM control over IP device, at companies with branch locations. ■ **StoneGate** announced details of its new firewall, VPN, and intrusion-prevention system products supporting IPv6. ■ **Winsted's** new Sit/Stand option adds more versatility to the company's popular Digital Desks with adjustable legs that let users sit or stand for optimum comfort and productivity.

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2. How often do you purchase computer hardware/software?
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- ☐ Bi-weekly
- ☐ Monthly
- ☐ Quarterly
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- ☐ No Involvement

3. What is your annual computer hardware/ software purchasing budget?
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- ☐ $25,000 to $49,999
- ☐ $50,000 to $99,999
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Pinpoint Performance Issues

TeamQuest IT Service Reporter Lets You Report On Disparate Components

IF YOUR ENTERPRISE is like most, you face network problems that can oftentimes prove difficult to detect, investigate, and diagnose. Programs such as TeamQuest IT Service Reporter can help.

TeamQuest IT Service Reporter is a rich Web application used to create, customize, and distribute reports via the Web or in PDF or Excel formats. Use Service Reporter to: create dashboard-style reports customized for your intended audience, customize reports with your logo and explanatory text using a drag-and-drop interface, and provide a performance management report revealing the status of IT services.
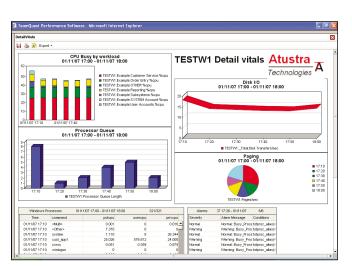
Using XML and Java, TeamQuest IT Service Reporter offers a highly interactive, Web-based user interface for defining reports. Use it to show which IT resources are at risk for performance issues and report IT service performance as it relates to business, seamlessly accessing data without regard to where the data is actually stored.

Automated Reporting

IT Service Reporter is the perfect choice for automated reporting and simplified distribution. The program automatically creates periodic customized performance reports and makes those reports available to IT or business unit management.

Reporting features let you create dashboard-style reports to communicate status at a glance and service level achievement at a glance, revealing opportunities for improved efficiency to management. You can show which systems are at risk for performance issues. Use workload analysis features to analyze and report how much of each server resource is being consumed by each IT service, business process, department, or application. Or use IT Resources to analyze and report the performance of IT services, combining performance data from multiple servers, applications, or other components.

Reports can be accessed over the network or from a browser, so you can access data anywhere. A simple drag-and-drop interface lets you define reports. And you can limit access to reports that include only the performance information appropriate for a particular user.

With IT Service Reporter, you can easily define detailed reports pertinent to different audiences, annotate reports, and even include your company logo for more a more polished, professional look.

IT Service Reporter is interoperable with your own or third-party applications. You can export and import IT Resource definitions from CMDBs or third-party discovery tools using XML; generate reports using reporting tools such as Crystal Reports in conjunction with an optional Oracle enterprise database; export reports in Adobe PDF or Excel formats; and generate alarm events and send them to third-party consoles via SNMP traps.

Multiple Users, Uses

IT executives, managers, and clients rely on Service Reporter to:

Demonstrate IT value. With Service Reporter, you can use customized management reports to show service delivery efficiency; report IT service performance relative to agreed-upon service levels; and improve communication by including informative text on reports.

Communicate IT service performance as it relates to business. Perform your analysis and reporting at a level that makes sense to IT management and business units and show performance by department, by user, by application, by server tier, or other business-relevant criteria.

Show where excess or insufficient capacity exists or will exist in the future. A capacity dashboard reveals IT service status, so you can spot performance trends and concentrate IT optimization efforts on IT resources that affect important IT services.

Product features:
- Create, customize, and distribute reports
- Report IT service performance and service level achievement
- Include graphics and annotate reports for your audience
- Report how much of each server resource is being consumed by each IT service, process, department, or application
- Automatically distribute reports via the Web or use PDF or Excel formats
- Demonstrate IT value and efficiency
- Show service delivery efficiency with customized management reports
- Report IT service performance relative to agreed-upon service levels
- Identify excess or insufficient capacity
- Provide a capacity dashboard revealing IT service status
- Concentrate IT optimization efforts on IT Resources that affect the most critical IT services
- Understand which of thousands of systems in your IT operation are at risk for performance issues
- Integrate with third-party tools
- Access performance data using your own or third-party reporting tools such as Crystal Reports
- Generate alarm events and send them to third-party consoles via SNMP traps.

Keep Your Data Center Cool & Dry

Rely On AVTECH's Room Alert 11E Environmental Monitor

ENVIRONMENT CONDITIONS in today's data centers are a major concern. Power outages, air conditioning failures, or blocked ventilation can cause temperatures to rise above 85 degrees in minutes, potentially damaging equipment and putting data at risk.

AVTECH Software's Room Alert 11E is a powerful, inexpensive, easy-to-use way to combat potential environmental problems.

Room Alert 11E monitors rooms of nearly any size. And since Room Alert 11E is connected via Ethernet and does not require a host PC for operation, it can monitor virtually anywhere.

Room Alert 11E allows alert notifications via email, email-to-SMS, SNMP, and more to virtually any device. Room Alert 11E also offers an easy-to-use Web browser interface for changing settings and viewing real-time temperature, humidity, and environment sensor status from anywhere.

The Room Alert 11E includes:
- Room Alert 11E standard or rack model
- One external digital temperature/humidity sensor, one external digital temperature sensor, and one external power sensor
- Eight sets of switch sensor contacts for connecting additional external sensors
- PageR 10 Object Enterprise software
- Power adapter, 10 feet of Ethernet cable, printed and PDF documentation, CD media, and Getting Started materials
- 12 months of toll-free technical support, software updates, maintenance, and AVTECH's hardware guarantee

Additional options include:
- External digital sensors for temperature/humidity or temperature
- External switch sensors for temperature, humidity, power, flood, smoke, air flow, room entry, and more
- 1U 19-inch rackmount package
- PageR software license upgrades
- International plug adapter

Instantly Search Terabytes

dtSearch Can Scan Terabytes Of Data In A Variety Of Formats

TODAY'S ENTERPRISES are filled with vast amounts of data in a variety of formats in seemingly endless numbers of locations. Finding the information you need can be daunting, which is where programs such as those from dtSearch can be essential.

dtSearch can instantly search terabytes of text because it builds a search index that stores the location of words in documents. Indexing is easy: Simply select folders or entire drives to index and dtSearch does the rest. dtSearch automatically recognizes and supports all popular file formats and never alters original files.

dtSearch can also create (and search with a single request) an unlimited number of indexes. Since you may want to search files that dtSearch has not indexed, dtSearch also does unindexed, as well as "combination," searching.

All dtSearch products can index more than a terabyte of text in a single index and create and search an unlimited number of indexes. Search time is typically less than a second, even across terabytes of data.

Along with the terabyte indexer, all dtSearch products include more than two dozen indexed, unindexed, full-text, and fielded data search options; support for hundreds of international languages; display of Web-ready content with highlighted hits and all images, links, and formatting intact; built-in HTML converters for hit-highlighted display of other popular file types; and distributed or federated search options, with display of local and remote content.

The dtSearch product line also embeds the dtSearch Spider, providing support for public sites, secure content HTTPS, password-accessible sites, and forms-based authentication; searching of static and dynamic content; and relevancy-ranking of spidered and non-spidered content.

The dtSearch Engine lets C++, Java and .NET developers add dtSearch terabyte indexer and file format support to Web-based and other applications.

MarketPlace ▲▼ NEWS

AMD Gets Big Investment

An investment firm based in Abu Dhabi, United Arab Emirates, has purchased 49 million shares of AMD stock for about $622 million or about $12.70 a share. The shares bought by Mubadala Development equate to about 8.1% of AMD. AMD will use the proceeds to invest in research and development, product innovations, and improved manufacturing. Because the investment is a non-controlling, minority interest, AMD says Mubadala will not receive a seat on AMD's board of directors and the investment is not subject to review by the Committee on Foreign Investment in the United States.

BEA Releases Belated Financials

BEA Systems is back in regulatory compliance after releasing late financial filings. The company had not filed quarterly financial reports with the U.S. Securities and Exchange Commission this year. Despite reporting lower software sales, the company's third-quarter profit, excluding certain items, was up to $78.9 million, or 19 cents, from $59.5 million, or 14 cents, a year earlier. Revenue was also up 11% to $384.4 million for the quarter. While license fees from software sales fell 1% to $134.8 million compared to a year ago, revenue brought in from services grew 18% to $249.6 million.

IDC Reports Lower Q3 Handheld Device Shipments

According to IDC's Worldwide Handheld QView report, the third quarter showed a decrease in handheld device shipments, making it the 15th consecutive quarter with declining numbers. Shipments for the third quarter were 728,894, down 39.3% from the third quarter last year. IDC analysts say contributing factors to the declining shipment figures could include mobile phones and converged mobile devices now having the same capabilities as handheld devices and vendors reallocating their resources. Palm led in market share for the quarter with 44.6%, followed by HP with 27.2%, Mio with 11.2%, and Fujitsu-Siemens with 5.4%.

Blade Server Sales Set To Take Off

By 2011, more than 21% of all servers sold will be blade servers, according to analyst firm iSuppli, with about 2.4 million blade servers sold in 2011. With that prediction, iSuppli expects the blade server market to grow at a compound annual growth rate of 31.5%; about 620,000 blade servers were sold last year. In its report, iSuppli contends that the blade server is the optimized form factor of choice for servers and that blade servers will continue to grab market share away from other server form factors if progress on virtualization, product interoperability, and multicore, low-power-consumption microprocessors proceeds well.

Internet Ad Revenue Hits New Record

In each of the first two quarters of this year, revenue for online advertising hit a new high, and the third quarter continues the pattern. The IAB (Interactive Advertising Bureau) and PricewaterhouseCoopers released a report showing that third-quarter Internet ad revenue totaled $5.2 billion, up 25%, marking a new record. During the first three quarters of last year, online advertising revenue added up to $12.1 billion, while this year's first three quarters' online ad revenue rose almost 26% over that figure to total $15.2 billion.

Google Sued Over Search Patent

A lawsuit has been filed against Google by Northeastern University in Boston and Jang, a company specializing in distributed search technologies, claiming that the company has infringed on a patented technology. According to the lawsuit, Google uses a distributed database technology that was developed by Kenneth Baclawski, a co-founder of Jang and associate professor at Northeastern. The next step in the process is for Google to respond to the lawsuit. The court will also have to decide if the lawsuit has merit before a trial date is set.

IBM Unveils Blue Cloud

IBM is working to make data centers operate more like the Internet by enabling computing across a distributed, globally accessible fabric of resources as opposed to local machines or remote server farms, according to a release announcing the project. IBM says project Blue Cloud, which is being created by more than 200 IBM researchers around the world, will be based on open-standards and open-source software in addition to IBM software, services, and technology. A typical cloud computing scenario links pools of systems to provide IT services. The first products, available in the spring, will be based on IBM Blade-Center servers, with plans for a mainframe cloud environment later next year.

EC Announces Google Investigation

In response to Google's proposed acquisition of online advertising company DoubleClick, the EC (European Commission) announced it will be opening an investigation into the deal. The proposed deal would be worth $3.1 billion. According to the EC, the group is concerned about what effect such an acquisition would have on competitors throughout Europe. According to an EC statement, "The commission will, in particular, investigate whether, without this transaction, DoubleClick would have grown into an effective competitor of Google in the market for online ad intermediation." Google has stated that it's disappointed that the EC has extended its review of the acquisition.

Symantec Faces Staff Cuts

Symantec has confirmed that an unspecified number of employees will be facing layoffs. The number of jobs that are at risk or where those jobs are located has not been released by the company, however. According to Valleywag, a Silicon Valley gossip Web site, confidential Symantec HR documents that were viewed by a Valleywag source referred to the layoffs as Project Xpress. The newest layoffs follow Symantec's announcement at the beginning of the year that it was beginning a campaign to cut company costs by $200 million, which included reducing its worldwide workforce of 17,500 by 5%.

Study Assesses North America's Carbon Output

A government panel, the U.S. Climate Change Science Program, studied the carbon emissions and carbon absorption of North America and concluded that the continent's emissions are surpassing absorption by a rate of three to one. Although the report did not disclose details on the other continents, it did say that more than a quarter of all worldwide carbon dioxide emissions are released from North America. It also said North American vegetation is not abundant enough to absorb the continent's total carbon emissions. According to the study, the largest single source of carbon emissions is electricity generation, with transportation coming in second.

Microsoft Sets Web Advertising Goals

Kevin Johnson, president of the platforms and services division at Microsoft, says the company has a "10, 20, 30, 40" plan to become one of the top two in online advertising over the next three to five years. Johnson says Microsoft wants to increase the percentage of page views on its sites from 6 to 10%. Likewise, it aims to increase the percentage of minutes users spend at its Web sites from 17 to 20%. It also plans to boost its online search market share to 30%, up from the 10% ComScore reported for it in September, and grow its share of digital ad money to 40%, up from 6% now.

Senate Passes Cybercrime Bill

The U.S. Senate passed the Identity Theft Enforcement and Restitution Act by unanimous consent. The bill, which was introduced by Senator Patrick Leahy, enables victims of identity theft to seek restitution from criminals for the time spent to fix resulting problems. In addition, the bill expands the definition of cyberextortion to include criminals who threaten to take or release information from a computer. In a statement, Cyber Security Industry Alliance President Tim Bennett said that the new bill closes "loopholes" that were previously in U.S. laws.

WATCH THE STOCKS

This information provides a quick glimpse of current and historical stock prices and trends for 15 major companies in the technology market.

Company	Symbol	Year Ago $	Nov. 13 $	Nov. 19 $	% change from previous week
BEA Systems	BEAS	$13.58	$16.89	$15.68	▼ 7.16%
Computer Associates	CA	$21.99	$25.40	$25.50	▲ 0.39%
Cisco Systems	CSCO	$25.80	$30.14	$29.43	▼ 2.36%
Dell	DELL	$27.01	$28.21	$26.62	▼ 5.64%
Electronic Data Systems	EDS	$26.75	$20.33	$20.25	▼ 0.39%
Google	GOOG	$484.75	$660.55	$625.85	▼ 5.25%
HP	HPQ	$38.64	$49.50	$49.44	▼ 0.12%
IBM	IBM	$91.45	$105.27	$102.22	▼ 2.9%
Intel	INTC	$21.02	$26.14	$25.17	▼ 3.71%
McAfee	MFE	$28.29	$37.61	$35.70	▼ 5.08%
Microsoft	MSFT	$29.48	$34.46	$33.96	▼ 1.45%
Oracle	ORCL	$18.92	$20.52	$20.53	▲ 0.05%
Red Hat Software	RHT	$16.98	$20.14	$18.91	▼ 6.11%
Sun Microsystems	JAVA	$5.36	$21.25	$19.63	▼ 7.62%
Symantec	SYMC	$20.67	$17.53	$17.41	▼ 0.68%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

SIX QUICK TIPS

Good Cable Management Wards Off A Host Of Complications

by Drew Robb

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CABLES DON'T GENERALLY get much attention in IT, until lack of cable management best practices comes up and bites. Perhaps you have to trace one cable through a spaghetti junction of wires, or your underfloor cold air distribution system packs up due to having too many cables in the way. The bottom line is that IT managers need to efficiently take care of cabling. Here are some tips to cover various aspects of this important sector.

Do It Right The First Time

The pervading attitude can sometimes be to quickly connect computers in whatever way possible and worry about the consequences later. The end result of that mindset is a labyrinth that can be almost impossible to understand. "Too often, people do quick and messy cabling during installation, with the intent on cleaning it up at a later date," says James Rankin, a technology specialist at CDW (www.cdw.com). "Unfortunately, the time to organize it later rarely materializes."

His advice is simple: Do it right the first time. This is facilitated by cabling each new device cleanly and also by routing cables through cable managers during the initial installation. Cable managers provide standardized pathways so that it is easy to track where everything is. They add a simple organizational element that makes a big difference.

General Guidelines

There are, of course, various time-honored practices that IT managers should employ to minimize hassles and prevent double work. It goes without saying that you should plan cabling instead of it being a haphazard process. Similarly, it makes sense to delay the installation of cable until all equipment has been installed in the rack.

Other common-sense tips include avoiding dressing cabling tightly over sharp edges of railing or panels, taking care not to pinch cables between components, and avoiding tight bend radii. "Cables should never be bent tight enough to cause a crease in the sheathing," says Bill Starnes, program manager for enterprise infrastructure solutions at HP (www.hp.com). "Fiber cables must not violate their minimum bend radius—no exceptions."

BEST RETURN ON INVESTMENT: *Think About The Future*

❏ Maybe you only need CAT 5e cable today. But what about tomorrow? If you cable based on current needs only, you could end up facing a costly rewiring project in the next year or two. For example, for a new network installation today, it would probably be best to use CAT 6 cable instead of CAT 5e. Why? CAT 6 will support the copper-based 10Gb networks that most analysts believe will become prevalent in the very near future. CAT 5e cabling, however, won't support it. Therefore, using CAT 5e now would only necessitate redoing all the work to accommodate future upgrades for 10Gb. The moral is simple, says CDW's (www.cdw.com) James Rankin: "Choose cabling based on your anticipated needs in the near future."

SIMPLE TIP: *Data On Top*

❏ One best practice in cable management is separation of types of wires. With the trend being to route cables outside of the rack, it is always wise to separate the different kinds of cable.

"Generally speaking, data cables are being routed on top of the cabinet and power cables below," says Emerson Network Power's (www.gotoemerson.com) Phil Dunn. "There is a clear desire to separate the two types for reasons of electrical interference, as well as numbers of cables."

As managers work with data cables more frequently, having the data cables on top of the rack provides easy accessibility to them. Power cables, on the other hand, are generally not touched as often, so it is OK to leave them underneath.

When securing cables inside the rack, you should dress the bundle in such a way as to avoid interference with installed components or rack side panels or rails. Similarly, you should separate power and signal cables as much as possible. For example, dress all signal cables on the left side of the rack and all power cables on the

> You should plan cabling instead of it being a haphazard process. Similarly, it makes sense to delay the installation of cable until all equipment has been installed in the rack.

right side of the rack. And watch out that cabling does not impede the airflow to the rack-mountable servers or increase the internal rack temperature beyond the specified maximum rating.

"For components that must be movable while powered on, ensure a full range of motion is possible without cable interference or disconnect," says Starnes.

Rack Cabling

Modern rack environments are more complex than ever. Multicore processors and blade servers have created ultra-dense environments where change is the watchword. With more compute power in less space, cabling can be a real challenge. One solution is cable management kits, which are available from most server and cable vendors. Such kits can prove invaluable in streamlining and simplifying cabling requirements. "Due to the dynamic nature of the rack environment, the cabling of systems has very few hard rules," says Starnes. "Cable management kits provide an easy way to organize and route cables within racks."

Another way to address rack cabling is to go for bigger racks whenever possible. Most users are probably best served by ordering the largest cabinet they can afford.

"Since power inputs are increasing, there is a corresponding increase in the size of the input cord and plug as rack size increases," says Phil Dunn, senior product manager, Emerson Network Power (www.gotoemerson.com). "Three-phase power strips are now common, with a much thicker cord than single-phase."

With these cables being larger, though, they need more management attention. IT managers need to take particular care, for

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instance, to keep the cords from blocking the airflow in the cabinet.

Underfloor Hell

Next time you are in a data center with underfloor cooling, take a look under the perforated floor tiles to see how much cabling disarray exists. Too much mess down there can wreak havoc with cooling and cause overheating in the racks.

"If not properly managed, cables can obstruct airflow through perforated floor tiles and prevent air from being exhausted out the rear of the rack," says Dunn. "Check under the floor to determine if cabling or piping is obstructing airflow."

There are a couple of alternatives that can address this situation. Overhead cabling is one option, as it eliminates the potential for obstruction. Vendors such as Emerson offer systems that keep cables in trays that are channeled neatly above the racks.

Deeper racks are available to allow for increased airflow, and sometimes existing racks can be equipped with expansion channels to add depth for cables and airflow. Use caution, though, when deploying cable management "swing arms," as they are not compatible with all equipment airflow patterns. ◨

BONUS TIPS

Power up, cable down. One immediate way to reduce cabling is to go for a heavier pipe; that is, investigate the possibility of bringing high-voltage three-phase power as close to the IT equipment as possible and increasing the voltage of the IT equipment. That will minimize the number and size of the power cable feeds under the floor.

"This can sometimes be accomplished by using high-voltage three-phase managed power strips within the rack," says Emerson Network Power's (www.gotoemerson.com) Phil Dunn. "But it may also require the use of multiple-pole distribution panels or power distribution units (PDUs) located within the row of IT equipment racks."

Color-coding. As much as possible, color-code and label all cabling. Especially with UTP (Unshielded Twisted Pair) cabling, color-coding makes quick identification easy.

Options For Equipment Disposal & Recycling

Where Can An SME Turn When It's Time To Get Rid Of Older Equipment?

by Elizabeth Millard

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AS TECHNOLOGY MARCHES on, it often leaves equipment in its wake. The pace of innovation is thrilling for those who want faster servers, more streamlined desktop machines, and nicer gadgets, but it also makes for an environment that necessitates creating an equipment disposal and recycling plan that covers not just current equipment, but hardware purchased in the future, too.

Once equipment is prepared for either disposal or recycling (see "Prep Equipment For Exit" on page 1), which usually involves salvaging the reusable parts, a small to midsized enterprise has to decide whether to hire a service company for the task or do the work internally. Much like other types of technology decisions, the choice depends on a number of factors.

Going In-House

For some SMEs that do only minimal equipment disposal, it may make sense to handle the tasks internally, as well as research local and state regulations regarding technology waste and recycling. But the first question to ask is: How many pieces of

equipment can your SME actually discard? In many cases, the number is lower than many might think, according to Cliffie McKay of DMD Systems Recovery (602/307-0180; www.dmdsystems.com). "The question can be a slippery slope, and the answer changes slightly every day," he says. "A company is allowed to discard a certain number of pieces of computer equipment per month in the trash, but the quantity that they are allowed to discard is very limited."

Companies that have a procurement department could come up with creative ways to discard older equipment, McKay notes, such as donating desktops or servers to charity or creating an employee program that gives staff members machines for minimal cost or even free. But donations and employee programs can create issues if the equipment starts to fail or if the company's data was not wiped from the drives effectively. Also, if a company gives the equipment away, there's rarely a paper trail to follow in the event that the machines are improperly thrown away and the EPA discovers them.

Regulatory Thinking

To minimize issues that might crop up with improper disposal, McKay suggests that companies thoroughly research regulations specific to the state where the company

has its headquarters. "Universal waste" regulations can vary from state to state, and some states require companies to send technology equipment to certified recyclers. Most federal requirements do not regulate small-quantity disposals (less than 220 pounds), but disposal levels higher than that must be done with identification of CRT monitors and other "hazardous waste."

"The regulatory risks in disposing of old IT assets are twofold: environmental and data security," says Rike Sandlin of asset management firm Intechra (www.intechra.com). Regulations are a "patchwork approach" currently, he says, with some states having little to no regulations around the disposal of electronic equipment.

In terms of data, Sarbanes-Oxley requires corporate governance measures, and other laws such as Gramm-Leach-Bliley and HIPAA can also apply.

Hiring Help

There are a number of service providers in the equipment disposal space, but not all vendors are created equal. The growing demand has brought some less-than-reputable companies into the marketplace within the last few years, experts have noted, so exercise some caution when hiring.

"There are several hundred IT asset disposition companies and computer recyclers in the U.S.," says Sandlin. "Far too many of them don't have the resources to invest in the right processes, or they are unscrupulous and take in electronic waste only to ship it to an underdeveloped country, where it can cause serious health problems."

First, establish an internal policy that can be used at a provider, says Bob Houghton of asset management firm Redemtech (www.redemtech.com). A vendor may have suggestions for enhancing a company's program, he notes, but an enterprise needs to know what it wants before it starts looking around. "Have a clear idea of your expectations and needs," he says. "You'd be surprised at how many companies don't have an existing policy about equipment disposal."

Also important is to find a vendor that's financially sound, Houghton adds. Although this is good advice for any vendor selection, it's particularly crucial in the disposal and recycling realm. If an equipment disposal vendor goes out of business and decides to throw equipment into a landfill,

it's the vendor's clients that will be held responsible, he says. Recently, that exact incident happened in California, when a vendor closed its doors and emptied its warehouse in the local dump.

To limit liability, make sure that a vendor offers insurance coverage that will specifically indemnify the customer for environmental cleanup if anything goes wrong. There should also be a significant amount of general liability insurance, in case data cleansing procedures are done incorrectly and data becomes exposed.

Finally, it's important to make a site visit to a vendor, even if it requires hopping on an airplane and spending a few days in another state, Houghton says. Many companies don't do site visits, but he believes that's a mistake. "We're all pretty good at putting together a sales presentation," he says. "But what really determines whether a company is going to work for you is its operational maturity. That's something you can only see if you go into their plants and audit their processes."

A strong outsourcing relationship with an equipment disposal and recycling vendor can be very useful for any data center, Houghton adds. Not only does it mitigate risk, but a company can establish a revenue stream from recycled equipment that's sold into the secondary market. "To establish that relationship, take your time and really get to know the vendor," he says. "Ask questions about shrinkage and inventory management and how they account for all the hardware you send. At the end of the day, if you've done your due diligence, it can be a great partnership." ▣

CompTIA Program

Those who are members of CompTIA (Computing Technology Industry Association) may find that their association ties are valuable when it comes to equipment disposal. Last month, the group unveiled a new, low-cost technology-recycling program for members.

Through AnythingIT (www.anythingit.com), an asset management firm, CompTIA members can become part of RecycleTomorrow, which employs extensive data removal procedures that comply with regulatory mandates. Members pay for services in advance and get a price break as part of the CompTIA deal. But a small to midsized enterprise doesn't have to sign up for CompTIA in order to use the service; AnythingIT's asset management and disposal is available to hire on an independent basis, as well.

Better IP Address Management

New Infoblox Appliance Keeps It Simple, Central

TOO OFTEN, managing IP addresses involves spreadsheets, manual processes that ultimately lead to mistakes or being blown off for more business-critical tasks. Thus, it's prudent for SMEs to automate such processes so their limited IT staff can focus on more business-critical operations.

Infoblox announced the Infoblox IPAM WinConnect system, an IP address management appliance with integrated software support for Microsoft DNS and DHCP services that automates the often times tedious processes related to administrating IP addresses. It's important that

SMEs should consider the impact of automating the administration of their IP addresses when considering this solution.

With the IPAM WinConnect, SMEs can manage DNS, DHCP, and IPAM from a centralized console through a GUI offering graphical and hierarchical representation of the IP map and view detailed audit logs providing administrative audit trails. If your

SME has to comply with compliance programs, IPAM WinConnect's reporting capabilities will be a boon around auditing time. It also automates data backups of your IP address data under management.

The power of IPAM WinConnect is the detailed audit logs providing administrative audit trails for regulatory compliance. The audit logs offer insight into historic and current IP usage, as well as automatic discovery of IP devices on the network. Moreover, delegated administration provides granular, role-based administrative ownership where it is most appropriate while protecting the network as a whole.

Infoblox is already an established appliance vendor, and the IPAM WinConnect runs on reliable, security-hardened Infoblox appliances running NIOSTM software for simplified installation and easy software

updates. It also offers automated backup and restore to enable high uptime and eliminate data loss. It is agentless and does not require any modifications to existing Microsoft DNS/DHCP infrastructure for seamless installation and minimal maintenance.

Charitable IT Donations

Options For Donating Used Equipment

by Don Reisinger

• • •

BUSINESS ETHICS, while a relatively new phenomenon, has become one of the most important elements of any company looking to make a difference in the community. And while some of that revolves around doing what is right, an important element of acting ethically involves charitable donations. After data center managers decide they can reuse their old IT equipment (see "Prep Equipment For Exit" on page 1), some may consider donating it to a reputable charity.

Managers should consider a host of issues before they make the decision to donate electronic equipment to schools or other charitable organizations. Unfortunately, a slew of pitfalls can trick data center managers into donating equipment to fake charitable organizations that actually intend to sell the equipment for a profit.

In the end, though, finding the right charity for your small to midsized enterprise is an important step in becoming a more socially responsible company. And if that wasn't enough to justify a contribution to a charity, most charitable donations are tax-deductible.

Find The Right Charity

Finding the right charity is not a simple task. Instead, the process may take some time for data center managers to consult the right organizations and find the charity that could benefit most from the equipment.

Before they begin their search for reputable organizations, data center managers should be aware that some organizations, while they purport to take equipment and deliver it to worthy individuals, actually resell the equipment for a profit. These organizations are usually left off such trusted charity lists as Charity Navigator (www.charitynavigator.org) or Charity Watch (www.charitywatch.org).

A good place to start for most companies is a local charity. Instead of finding a national charity that doesn't necessarily represent the community the company is a part of, a local charity could provide a number of benefits. In fact, if a company is concerned with giving back to the local community, charities in the general area typically have a better idea of what groups may need the equipment.

More often than not, local charities are the easiest to donate to. Instead of searching for national organizations that a company has no knowledge of, local charities typically have a more public face in the community, and consulting a newspaper or area Web site usually yields the contact info needed to get the ball rolling.

On the other hand, some organizations want to appeal to people on a more national level. If that's true, managers should be aware that not all organizations donate to the same place. If a data center manager wants to donate to schools, she should consider the National Cristina Foundation (www.cristina.org), which takes donated IT equipment and delivers it all over the country to schools or to people with disabilities.

If a data center manager wants to donate equipment to low-income families that may not be able to purchase computer equipment for their homes, The On It Foundation (www.theonitfoundation.org) may be a viable possibility. Unlike some charities that send products to schools or other not-for-profit organizations, The On It Foundation focuses solely on bringing the community into the charitable process by providing free computers to local families who have school-age children and meet the requirements. The charity also provides 20 hours of training with each computer.

Factors To Consider

As Trey Granger, content manager of Earth 911 (earth911.org), an organization dedicated to making the public aware of charitable opportunities to save the environment, says, "There are several important things to consider when disposing of electronics."

Perhaps the most important element in the charitable donation of equipment is security. While donating equipment is certainly an important step that any organization should take, it's also important for that organization to realize that equipment will be leaving the building, so managers should remove all data in its entirety.

Granger says, "If an organization is recycling an electronic device that stores personal information (computer, cell phone), data center managers should make sure the device is wiped clean before it is donated. There are plenty of programs available that allow managers to erase an entire computer hard drive without the threat of losing important data."

Data center managers also need to take into account the environmental factors that go into transporting electronic equipment. According to Granger, managers should strive to work with organizations that employ an electronic waste collector. These people are trained in how to transport electronic equipment in a way that is environmentally safe.

Another important consideration when donating to a charity is public perception. Simply put, if a company donates to a charity that does not represent the best interests of the public at large, the public's perception of the company could be damaged.

The Advantages Of Charitable Donations

One of the most important elements of any charitable donation is how it affects your company. By offering equipment to the community, your company can enjoy the benefits of increased visibility, an expanded network that could allow for future growth, and the public's knowledge that your company has given something back.

On the other hand, charitable contributions also behoove an organization from a financial standpoint. Instead of saving no tax dollars through a recycling program, organizations can enjoy a slew of tax benefits upon donating equipment to a charity. In fact, as long as a donation is made to a public charity and is recognized as such under federal taxing statutes, an organization can deduct donated equipment at its fair market value. In other words, an organization gets the benefit of tax liability deductions without sacrificing any expenses already taken against the donated assets.

Charitable donations are an important part of a solid and well-run organization. And while most SMEs are looking for ways to donate equipment in a way that would behoove them the most, there are a number of pitfalls that could easily throw that off. But with some diligence and the dedication to get equipment into the hands of people who need it most, a charitable organization that leads an industry in ethical behavior may be in any IT manager's future. **P**

Charitable Organizations

The National Cristina Foundation
www.cristina.org
(203) 863-9100
What it takes: Pentium III and higher CPU; accepts complete systems, including a hard drive, monitor, keyboard, and mouse, or partial systems
What it does: Provides computer technology and solutions to give people with disabilities, students at risk, and economically disadvantaged persons the opportunity, through training, to lead more independent and productive lives

The On It Foundation
www.theonitfoundation.org
(305) 749-2507
What it takes: Any and all operable computers
What it does: Collaborates with existing computer access centers, education institutions, businesses, and the surrounding local area to aid in the technological advancement and achievement of disadvantaged youth by providing free computers to those who qualify

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Network Instruments Observer Caters To Customers

Version 12.1 Boasts Support For Security Forensics, VoIP & IPv6

THE LATEST VERSION of Network Instruments' Observer network analysis software, 12.1, includes features that stem from customer suggestions, such as increased customization options and the capability to show certain statistics graphically. Support for IPv6 and enhanced VoIP reporting are also included in the new version.

The Observer product family embraces three core products: Observer Standard, Observer Expert, and Observer Suite. All editions of the software offer the following features:
• Packet capture and decoding
• Real-time statistics and trending
• Support for shared and switched network environments

VoIP Expert is a component of the Observer Expert and Suite products that can be used to analyze and troubleshoot VoIP on your network. VoIP Expert provides visibility into network-, application-, or conversation-level VoIP traffic; the software also supports QoS and call detail record trending. Observer version 12.1 extends integration with the GigaStor retrospective network analysis appliance and its Observer Reporting Server.

Network Instruments Giga-Stor is a 1U or 4U appliance that connects to a network and captures and saves everything traversing the network. It provides long-term, real-time, and post-capture network statistics across multiple topologies and technologies. This tool is optimized for data mining, network forensics, and data retention compliance applications.

The Observer Reporting Server integrates tightly with the Observer protocol analyzer family and GigaStor. Reporting Server centrally consolidates data captured from one or more Observer-based network probes and lets admins display reports of the data in a meaningful manner.

Prep Equipment For Exit

equipment may not have the throughput necessary to be used in production, it might be fine for testing tools or teaching concepts," Mallery says.

A safer, and in many ways more cost-effective, method for dealing with equipment no longer in use is to contact a company

Easier Said Than Done

By far, selling equipment is the most popular option for unused or decommissioned equipment among enterprises of all sizes. Experts point out that some companies have potential gold mines of equipment they're no longer using, and in some cases, they don't even realize the equipment is worth a mint. But it's worth noting that how much a company can make off of its equipment is dependent on multiple factors.

"Think of it as auctioning off a bachelor—the best ones are of a profile that is in demand," says Vibrant Technologies' (www.vibrant .com) Corey Donovan. "'Desperately seeking: servers for purchase from a large family (install base), not too old (three to four years or less), full of surprises (the more internal features, the better), and has to have a job (in working condition).'"

Small companies might find success by selling their items on eBay, Craigslist, or a similar online service. Gauging the correct listing price can be tricky, but researching similar listings can give sellers an idea of what their equipment can fetch. However, the work involved with finding a buyer, packaging the equipment, and conducting the transaction can entail plenty of man-hours—in some cases, far more than what the sale itself is worth.

that's in the business of reselling used IT equipment and have it audit and buy the equipment. Hyser says companies are wise to have an ongoing plan that takes into consideration when equipment is becoming obsolete. This plan will give SMEs the ability to upgrade when the older equipment still has remarketing value, and when the time comes to sell, the reseller can come in.

Track The Journey

Preparing equipment for disposal, sale, or recycling isn't as simple as pulling it from a storage closet and tossing it on a pallet. Hyser says that it's imperative that companies have a plan in place for recording serial numbers and counting equipment before it leaves the premises, and it also must track the equipment's journey. "Whoever you send it to, you need to make sure you can certify those same items that were in your hands at one point ended up at their intended destination. That way you can identify any gaps. Even at the bare minimum, you weigh it before it leaves and [check that] it weighs the same when it gets there," Hyser says.

An SME can accomplish these steps, Hyser says, through the help of a third party that can perform the auditing at the end location. Without detailed knowledge of the buyer and the buyer's intentions, the seller can encounter problems with increasingly strict disposal laws and other compliance regulations down the road. "The last thing a data center manager wants is their old equipment headlining the nightly news for having turned up in a local lake or river because they chose the fast and cheap option," says Corey Donovan, vice president, Vibrant Technologies (www.vibrant.com).

For equipment that's hooked into an existing environment but no longer in use, the company can uninstall the equipment or hire

a third-party service provider to uninstall it and prepare it for shipment. "If they choose to uninstall it themselves, the equipment should be removed from the data center and palletized for shipment, along with cables, accessories, etc. that go along with each piece of equipment," says Anita Lind, CEO and founder of Maxxum (www.maxxum inc.com). "Items in racks can often be left in them for shipping. The most important thing is to pack the equipment in a way that will prevent any damage to it."

Avoid Data Loss

Properly preparing equipment for shipment is key, but more important is ensuring that the equipment contains no sensitive company data. Despite the continuing stream of high-profile data thefts and leaks, companies still manage to leave data on hard drives, routers, and other devices that could compromise their business. Not only is that unwise from a logical business standpoint, but it's also illegal, as today's compliance laws require that companies destroy information before disposing of equipment.

"When exiting items that contain data on them, such as servers or storage devices, organizations are legally obligated to eliminate the data either via overwrite destruction according to Department of Defense standards or physical destruction. This can either be performed after the equipment has left the organization as part of a third-party vendor server or prior to exit from the company," Lind says.

Lind recommends sanitizing hard drives using the Department of Defense 5220.22-M Disk Sanitizing Standard, which she notes is a widely accepted secure data destruction method. Maxxum, in particular, certifies data destruction by the serial number of the host machine and then reports the date of receipt at Maxxum's distribution center.

"Maxxum strongly recommends an end-of-life plan encompasses secure storage prior

Regulatory Risks

While recycling or disposal is certainly an option for dealing with unused equipment—and there are qualified recycling and disposal companies spread throughout the country—many experts contend that there is far more value in reuse when it comes to data center equipment, and this route helps enterprises avoid the hassle of dealing with prickly regulations. But even the reuse route brings with it potential pitfalls, depending on the particular route a company takes.

"Managers must be extremely careful navigating their disposal options," says Maxxum's (www.maxxuminc.com) Anita Lind. "There are many, but only one or two that allow a company to be a responsible corporate citizen, as well as compliant with regulatory initiatives protecting against data and environmental breaches."

This strict regulatory environment is expected to continue well into the future, potentially with even tighter reins than we're seeing today. "Going forward, there is definitely going to be more regulation surrounding the disposal of electronic equipment," says Barry Shevlin, CEO of Network Liquidators (www.network liquidators.com). "There are new standards in Europe that severely restrict the methods in which companies may dispose of electronic waste, and the U.S. will surely take similar steps in the next few years."

to sanitation [and] comprehensive inventory and certified sanitation, along with compliant recycling for true end-of-life assets," Lind says. "It is also recommended that enterprises transfer ownership and liability of the assets and have detailed documentation protecting them, should a breach of compliance to federal, state, or local waste laws occur with a device exiting the organization." P

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Phone System Flexibility

New Hybrid IP PBXes From TalkSwitch Provide The Right Mix Of Options For Nearly Any Company

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488vs	4	8	8	8	$1,895
800 series					
840vs	8	4	12	0	$1,495
844vs	8	4	12	4	$1,795
848vs	8	4	12	8	$1,895

TALKSWITCH'S new lineup of hybrid IP PBXes mean customers have even greater flexibility in designing the ideal phone system for their business.

New systems are available across each TalkSwitch series and, when combined with TalkSwitch's current lineup, provide a combination of lines, extensions, and other options for companies of nearly any size. And all TalkSwitch systems can be upgraded and networked together to a maximum of four TalkSwitch units with capacity for 32 incoming phone lines, 64 local extensions, and 32 VoIP trunks per office location.

TalkSwitch IP PBXes feature:

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Make It Difficult For Intruders

authentication, which requires two forms of identification, generally something you know and something you have. This makes it more difficult for an intruder to falsify an identity and get on the network.

Forms of identification include secure IDs on USB sticks or smart cards and passwords, for example. "Users have to have their passwords and the hardware token, too, to log in," says Steve Tate, security expert and computer science department head at the University of North Carolina at Greensboro. Strong two-factor authentication is available from multiple vendors, according to Simon. Examples include RSA's SecurID (www.rsa.com) and Aladdin's eToken PRO Smartcard (www.aladdin.com).

Minimization & Permissions

The enterprise should architect the network to minimize losses, according to Gene Spafford, executive director at the Purdue University CERIAS (Center for Education and Research in Information Assurance and Security). Minimization involves setting the network up so that if someone does get in, risk and damage are limited.

Permissions are part of minimization. Administrators can grant user access permissions or limit access to all the different resources on a network. "Active Directory is one of the most prevalent tools used to set permissions. There are a plethora of other third-party tools available," says Abrams.

According to Simon, users should only have access to the resources they need to fulfill their roles. The enterprise can set policies around company roles so that a user ID associated with a role has certain access rights and limitations automatically.

By using permissions, the enterprise can limit the potential for an intruder to use a single, compromised identity or system to get to the whole network.

One way to use permissions is to limit network access for customer service people whose roles include reading outside email, according to Spafford. If a customer service employee opens an attachment designed to help an intruder gain access and the customer service representative's ID has permission to access the rest of the network, the intruder will immediately gain the same access rights automatically.

To strengthen the use of permissions, partition the internal network into separate domains that don't have common authorizations or access, according to Spafford. By using separate domains, the same users won't automatically have access rights to the shipping department they work in, for example, and, say, the accounting department.

Other examples of minimization include encryption and database access. The enterprise can encrypt "data at rest" (data that is not moving around like network traffic) without storing the security keys on the system, according to Spafford. The intruder may find the encrypted data, but the security key to open it won't be sitting right next to it. Enterprises should keep sensitive or critical databases offline to prevent their exposure to intruders. "In a networked environment, don't have them connected to anything that is on the Internet," says Spafford.

Important tools that are increasingly available to small and midsized enterprises include DLP (data leak/loss prevention) software and NAC hardware and software.

DLP software detects sensitive information leaving the network. When it does, it can set off an alarm or drop the connection, according to Spafford. "Some of those products are available at modest prices, and the performance is reasonable," he says.

Enterprises use NAC technology to protect the network against infections and intruder access that pass through company endpoint hardware, such as laptops. For example, NAC can check a laptop to make sure its security software and patches are up-to-date before allowing it to connect to the network. NAC hardware is available today in the $800 to $2,000 price range per appliance, according to Abrams. Security software vendors are adding NAC software to their security suites, as well.

Tracking

It's hard to track an educated intruder. "One of the first steps an attacker will take after compromising a system is to cover their tracks—removing all logs and other traces of an attack," says Simon. Hardware, such as servers and firewalls, keep access and activity logs.

Good first steps to counter an intruder's stealthy behavior include having multiple points for logging and auditing system behavior across the network, according to Simon. Enterprises should keep log files on secure, remote storage on separate systems where possible to keep them safe from removal, Simon adds.

IDSes are another good means of tracking intruders. IDSes analyze security-related data from around the network to determine whether there might be a system or network compromise. A standalone IDS can be expensive. However, some firewalls come with IDS capabilities, according to Tate.

A Complete Plan Of Action

Discouraging intruders is a matter of planning and know-how, as well as an investment in a combination of affordable

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Keystroke Loggers: Security Method Or Management Mistake?

Keystroke loggers create a log of every keystroke made on a computer. While the software has been popular for recording employee activity to track inappropriate system use, today it is mostly a tool for hackers and a liability for enterprises, according to experts.

"Keyloggers are most commonly used by attackers to gain further credentials on a compromised machine," says Dan Simon, senior application security specialist at Halock Security Labs (www.halock.com). Hackers use keystroke loggers to record usernames and passwords that people enter or forward by email, so they can gain easy access.

Keystroke logging raises legal and privacy concerns. "It may run afoul of law, depending on where it's used," says Gene Spafford, computer science professor at Purdue University. Employee privacy issues are also a concern with keyloggers, according to Tom Turner, vice president of marketing, Q1 Labs (www.q1labs.com).

IDSes have the ability to see what intruders are doing, according to Steve Tate, security expert and computer science department head at the University of North Carolina at Greensboro. In addition, DLP (data leak/loss prevention) tools can scan computers to make sure sensitive information isn't leaving the enterprise, Turner says. Tools such as these have replaced keystroke loggers for the most part.

security products. Plan security-related purchases and intruder prevention measures in concert with each other and in advance. P

Citrix Unveils On-Demand Provisioning Server

Platform Enables Monitoring & Management Of Virtual Environments

VIRTUALIZATION has expanded rapidly throughout data centers, providing businesses with a tool for consolidation and optimization. The technology is also upping the ante on management. Citrix Systems has introduced its Provisioning Server, intended to reduce that complexity by providing on-demand provisioning of virtual and physical machines from a central location.

"Monitoring and managing these virtual environments is not as easy as it might appear," says Bala Murugan Vaidhinathan,

chief architect for Citrix. "You might reduce the number of pieces of hardware from 20 to one, but within the virtual environment, on that single piece of hardware, there are now 20 operating systems running. You've potentially put all your eggs in one hardware basket, and it needs to perform."

The Provisioning Server is based on the OS-streaming technology developed by Ardence, which was acquired by Citrix in January. The system allows for a more agile and cost-effective delivery of applications

and desktops and is expected to be used to complement technology from the recently announced Citrix acquisition of virtual infrastructure specialist XenSource.

"A lot of businesses have tried virtualization to some degree for a certain application, and often it may not have panned out as planned. They find they're not getting enough performance, and they just go back to single server mode," Vaidhinathan says. "There is not enough time and persistence to fix the problems."

Many of the mechanics of managing virtualized environments are similar to central management of sets of thin-client terminals, he says, a technology with which Citrix has a long history. The platform itself has been in development for about six years.

"We are very effective in understanding the mechanics of virtual environments,"

Vaidhinathan says. "In Citrix (terminal) platform you have one single OS being shared by 20 different users. Within today's virtual environments, you've got one piece of hardware being shared by 20 different operating systems."

Improved Application Availability

A10 Networks' AX Series Next-Generation Server Load Balancer Provides Industry's Best Price/Performance

TWO AX SERIES switches from A10 Networks are designed to provide reliable, cost-effective application-delivery platforms.

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The AX's ACOS (Advanced Core Operating System) architecture is revolutionary by market standards because of its native multisystems support, which includes an optimized multi-CPU architecture built from the ground up designed for performance, scalability, and reliability.

The AX's ACOS architecture scales performance across multiple decoupled CPUs and specialized programmable ASICs linearly to ensure maximum scalable performance, including when all of the features are turned on. The AX Series' aRule

Advanced Scripting technology provides ultimate policy creation flexibility to deliver rich traffic inspection and switching capabilities, helping organizations adapt to ever-changing conditions and application types.

The end result is a switch with uncompromised performance even when all features are turned on, which helps organizations reduce data center power, server, and rack space requirements. Plus, all features are included in the standard list price.

The two newest AX Series appliances, 2000 and 2100, are 2U appliances designed for enterprise data centers and server farms. The AX 2000 has two CPUs, 2GB of memory, eight Gigabit over copper ports, two G small-form factor pluggable fiber ports, and an 80GB hard drive. The AX 2100 has those same components, plus an additional two CPUs and two G small-form factor

pluggable fiber ports; the 2100 also has dual 80GB RAID 1 hard drives.

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NETWORKING & VPN

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Product Releases

CLIENTS

■ **Datamax** released its M-Class Mark II industrial-strength thermal and RFID printers, which feature compact, modular designs that let users easily replace or service important components. The printers include Datamax IntelliSEAQ technology, which extends the life of the print head, and thanks to DMXNet Manager, users can configure and support M-Class printers remotely over a network. Customers can choose between 6 inches per second and 10 inches per second configurations. They're available with 8MB/4MB (RAM/flash) or 16MB/8MB (RAM/flash) and offer parallel, serial, and USB connectivity. The M-Class printers also support several upgrades, including internal cutter, peel and present, and rewind capabilities. They have RFID options for UHF or HF requirements. The printers include a two-year or 2-million-linear-inch mechanical warranty.

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■ Monarch Data Pump Version 9 from **Datawatch** is an enterprise ETL and reporting tool for Windows servers. It automates the conversion of reports and PDFs into customized data to save time and speed business processes. Monarch Data Pump Version 9 will be available in Standard and Professional versions.

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■ **Mellanox** has announced the availability of three low-profile PCI-E adapter cards, designed to offer support for 10GbE connectivity through various cabling options, including copper UTP and fiber SR, LR, and LRM technologies. The adapters integrate the ConnectX EN 10GbE adapter controller and the Teranetics TeraPHY TN1010 transceiver to offer ConnectX EN's performance, virtualization offload capabilities, and emerging convergence technologies, regardless of the company's cabling solution. The three adapters available are the MNTH18-XTC (single-port UTP with PCI-E x8), MNTH28-XTC (dual-port UTP with PCI-E x8), and the MNTH29-XTC (dual-port UTP with PCI-E x8 Gen2), and each offers support for Windows, Linux, VMware, and Xen.

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■ **Ricoh Americas** has announced the launch of the Aficio SP 1000SF, a 600 x 600dpi monochrome multifunctional device. The entry-level 1000SF is 29 pounds and 18.08 x 15.2 x 17.6 inches (HxWxD) and is designed to seamlessly integrate into small offices or workgroups. Features include laser monochrome print, copy, and fax abilities and full-color scanning. Its rated print speed is 16ppm, warm-up time is less than 21 seconds, and multiple copy speed is 16 copies per minute. The device also lets users access two functions at once and includes integrated PaperPort 9.0 SE software, USB connectivity for flash drives, and a 250-sheet paper tray. The Aficio SP 1000SF starts at $315.

MESSAGING & TELEPHONY

■ **Edgewater Networks** announced that its EdgeMarc VoIP now supports WAN link redundancy. Thanks to this feature, customers have dual access link connections to enterprise locations. The WAN link redundancy can use a primary T1 that is terminated by an EdgeMarc router, which uses a broadband DSL or cable modem connection as a backup link. The single Ethernet uplink to dual default gateways offers primary and backup path routing or VoIP. The EdgeMarc can route VoIP traffic to the secondary path in the event of an emergency and then return traffic to the primary path automatically when the primary path has recovered. EdgeMarc VoIP Survivability features layer-based monitoring of call processing servers, automatic connectivity loss detection, and configurable processing server connectivity timers. It also includes support for multiple call processing servers using DNS, as well as local call switching between VoIP endpoints.

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■ **GFI** has announced the release of GFI MailArchiver 5 for Exchange, an email management and archiving software offering. The release ships with auditing abilities to ensure no tampering has occurred to archived email. Additionally, the release includes a PST migration tool that provides access to old PST files stored on client machines. The company says MailArchiver archives all company email, lessens dependency on PST files, allows employees to access old and deleted messages, and helps companies meet eDiscovery and legal compliance requirements. The software integrates natively with Microsoft Exchange 2007 and includes support for 64-bit Windows OSes. Pricing starts at $675 for 25 mailboxes, and other pricing options are available at GFI's Web site.

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■ **Hostway** released Fax Over Email, which enables computers to store, send, or receive faxes via an email account. The package includes a fax number that is assigned to the customer's plan. At that point, multiple users can access it. The package supports all common document formats, including PDF, Microsoft Word, text, and TIFF. Users send faxes by attaching documents to an email, and they receive faxes in their email inboxes. Fax Over Email supports any email-enabled device.

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■ **MessageGate** has announced the release of MessageGate 4.3, which can control which email messages travel into, across, and out of a company's network. Version 4.3 adds Exchange 2007 Transport Rule support, Exchange Adapter for IIS, and improved message-analysis performance. The MessageGate Adapter for IIS supports both Perimeter and Exchange modes. With MessageGate 4.3, companies can implement many of the functions provided by Exchange 2007 transport rules while still running Exchange 2003. MessageGate 4.3 is available for $42 per user, and volume pricing is also available.

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■ **Voltage Security** unveiled the latest version of Voltage SecureMail. Based on cryptographic innovation known as Voltage IBE (Identity-Based Encryption), Voltage combines extreme usability, manageability, and scalability with deeper enterprise features, capabilities, and benefits. Voltage SecureMail offers next-generation cryptography and centralized management capabilities. The release lets users create multiple brand interfaces per tenant. It also offers comprehensive support for European languages. Voltage SecureMail is available as a managed service through the VSN (Voltage Security Network), a SaaS (Security-as-a-Service) offering designed for enterprise business partners to gain on-demand immediate email encryption capability that is fully

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Product ✏ Releases

managed and low-cost. Voltage SecureMail includes Voltage SecureMail Gateway and Voltage Key Management Server.

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■ **WebEx**, now part of **Cisco**, launched a new version of its Web meeting service for individual professionals, MeetMeNow. This version adds personal videoconferencing capabilities and one-click Web meetings from within the Microsoft Office productivity suite. Delivered on the WebEx MediaTone Network, a global network specifically designed for the highly secure delivery of on-demand applications, MeetMeNow provides seamless video and desktop sharing without the net congestion or reliability problems frequently found in other Web meeting offerings. New video capabilities help create a compelling face-to-face Web meeting experience. MeetMeNow automatically finds and configures a user's camera. A meeting host can even switch between any of the meeting participants' video streams to create a virtual roundtable video experience. In addition, the MeetMeNow toolbar now integrates with the Microsoft Office suite, allowing users to launch a Web meeting while working on a document, spreadsheet, or presentation.

NETWORKING & VPN

■ The VPN-1 Power Multi-core from **Check Point** is a gateway that promises processing speeds of up to 5.3Mbps without sacrificing security. It can be based on quad-core Intel Xeon 5300 series or other processors. The VPN-1 Power Multi-core features the company's CoreXL acceleration technology for speedy defense of enterprise perimeters.

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■ **Cisco** announced a line of Cisco IE (Industrial Ethernet) 3000 Series switches designed for deployment in harsh environments, including factory automation, intelligent transportation systems, and utility substations. The Cisco IE 3000 Series switches are based on open network and protocol standards and offer a variety of power inputs of varying environments. The IE 3000 Series switches support up to 150 different port configurations for copper and fiber Ethernet deployments. Cisco includes security features for Layer 1 to 4 Access Control Lists, support for authentication protocols, and multilevel password protection. And with support for IEEE 1588 (a timing protocol), the Cisco IE 3000 Series provides nanosecond-level precision for high-performance applications, as well as for root-cause analysis with time-stamping.

Cisco has also unveiled the Cisco SFS 3504 Multifabric Switch, a gateway switch designed to accelerate server-to-storage application performance via centralized high-speed storage uplinks. The Cisco SFS 3504 is an InfiniBand double-data-rate gateway designed to interconnect highly distributed server resources to centrally shared storage arrays in SAN and NAS. The SFS 3504 provides up to four gateway expansion slots. Cisco also released FACT (Fabric Analysis and Correlation Toolkit), a set of tools to analyze and manage InfiniBand fabric. FACT shortens the time for initial bring-up for computational clusters and detects errors that may affect performance. The tools provide a central monitoring and management platform for computational networks and help pinpoint components in the fabric, such as cables and host channel adapters.

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■ **NetQoS** and **EMC** have worked together to introduce the integration of EMC Smarts ADM with NetQoS SuperAgent. The combined product offers both infrastructure discovery and performance monitoring. EMC Application Discovery Manager automatically detects applications and their associated components without the use of dependency maps, and NetQoS SuperAgent tracks performance through the analysis of response times. SuperAgent can help a company determine if performance bottlenecks occur at the server, network, or application level. NetQoS Connector for Smarts ADM provides data for NetQoS SuperAgent, CMDBs populated by ADM, and management platforms. Those who already have ADM 5.2 and NetQoS SuperAgent 7.2 can acquire the integrated product for free.

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■ **Network Instruments** has announced Link Analyst 5, which provides performance reporting, monitors network components, and provides tools for handling infrastructure availability. Users can monitor performance and infrastructure changes by process or department. Link Analyst lets administrators group devices into classes, such as Business Groups, so that each group can be easily monitored independently of the others. The software provides monitoring, reporting, and asset tracking. Link Analyst 5 costs $8,000 and is available for 10GbE, Fibre Channel, LAN, wireless, and WAN networks.

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■ **Oracle** has unveiled its Oracle VM server virtualization software, which is composed of open-source server software and an integrated Web browser-based management console. Oracle VM presents a graphical interface for generating and administrating virtual server pools, running on x86- and x86-64-based systems, across an enterprise. Both Oracle and non-Oracle products are supported by Oracle VM. Oracle products supported by Oracle VM include Oracle Database, Oracle Fusion Middleware, and Oracle Applications. Oracle VM also boasts features such as easy installation, quick deployment, efficiency, support for Linux and Windows, and affordability.

Oracle has also made improvements to its Oracle Enterprise Manager 10g, which has been developed to convey a wide range of abilities across the application life cycle for custom and SOA-based applications and prepackaged applications. Oracle Enterprise Manager 10g also offers quicker performance diagnostics for production applications and easier incident and problem management through integration with Oracle's Siebel CRM HelpDesk and PeopleSoft Enterprise HelpDesk applications. Also, Oracle Enterprise Manager 10g enhanced its ability to manage Oracle Business Intelligence, along with making data sharing across the application life cycle easier and more secure.

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■ **ScriptLogic** announced the availability of Desktop Authority MSI Studio 4.0, software designed to simplify aspects of MSI (Microsoft Software Installer). The software integrates with Microsoft System Center Configuration Manager 2007 and features package capture, repackaging of existing installers, an MSI editor geared toward the most commonly used features, and task wizards. Zero-Touch Testing and Conflict Resolution are also available on Desktop Authority MSI Studio Pro. Primarily, the software is designed to reduce the cost of application ownership, extract greater value

Geographic WAN Link Balancing

Elfiq Link Load Balancer Lets You Better Manage Traffic & Meet Your Budget & Data Center Needs

ELFIQ NETWORKS' Link Load Balancer (Link LB) 4000E is designed for data centers, incorporating 8Gbps copper ports and two SFP fiber connectors in a compact 1U design. It is licensed with two virtual instances (up to five) of the Link Load Balancer and has three pairs of programmable LAN failover ports. With the powerful Link LB-4000E, you can handle more than 2.4Gbps of WAN throughput.

The LB-4000E redefines the data center-level load balancing field by providing an unmatched functionality/price/performance ratio. It differentiates itself from the competition by operating at the data link network layer (Layer 2 inline/transparent operation) to manage synchronous or asynchronous telecommunication links. Elfiq Link LB implementation is simple and does not require IP address migration or changes to firewalls or routers. This prevents the use of complex protocols, such as Border Gateway Protocol, to support multiple links, and it reduces implementation projects.

The Elfiq Link Load Balancer guarantees optimal access for your network and applications for business continuity, while optimizing your multihomed network throughput. If a link fails, the Link LB will effectively redirect network traffic toward other links based on user-defined policies.

Advanced functionalities such as Geo-Link geographic load balancing make the Link LB a key element of disaster recovery projects and ensure maximum availability to the enterprise's IP services regardless of the scenario or environment. Traffic will continue flowing between sites when a site goes down and geographic policies clarify what kind of traffic or IP service is allowed to use another site.

For point-to-point resiliency implementations such as VPNs or VoIP, Elfiq's Best SitePathMPTX technology monitors the alternate paths and their respective effective bandwidth and then dynamically redirects the packets through the best available path without renegotiating the path, ensuring performance and uptime. The Elfiq Link LB gathers metrics and real-time bandwidth usage; this information can be encrypted and shared between two balancers for redundant implementations.

Elfiq Link Load Balancers are built around the Elfiq Operating System, and the hardware platform has no moving parts, reducing the risk of failures.

Elfiq Link Load Balancer 4000

Incorporates 8Gbps copper ports and two SFP fiber connectors in a compact 1U design; can handle more than 2.4Gbps of WAN throughput

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ELFIQ NETWORKS

Product Releases

from Desktop Authority and System Center Configuration Manager, extend the life of legacy applications, and increase administrator and user productivity. Desktop Authority MSI Studio 4.0 is available for $399 per administrator; the Pro version is $799 per administrator.

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■ **SMC Networks** says that its SMC8724-10BT TigerSwitch 10G Standalone 24-port switch is the first high-density 10GBase-T model in the industry. The 1U switch uses a 10Xpress PHY from Solarflare and Fulcrum Microsystems switching hardware. It features 20 10GBase-T ports and four XFP-based 10Gb fiber ports and supports IEEE802.3an. Look for it in January for $29,999.99.

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■ **Sun Microsystems** President and CEO Jonathan Schwartz was to release details concerning Sun xVM, which is Sun's open virtualization and management platform, this month during a keynote address at Oracle OpenWorld San Francisco. Schwartz was also to detail Sun's Eco technologies, which help increase IT energy efficiency and drive user cost savings. Sun was also expected to demonstrate Sun xVM Ops Center, a unified management infrastructure, and Sun xVM Server, an enterprise-grade, bare-metal hypervisor. Further, Sun planned to launch www.openxvm.org, an open-source community for developers working on next-gen data center virtualization and management technologies. Expected to be announced as key partners were AMD, Intel, MySQL, Quest Software, Red Hat, and Symantec.

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■ **Voltaire** introduced the Grid Director ISR 2004, a 20Gbps, 96-port InfiniBand switching platform for high-performance unified fabrics in the data center. When combined with Voltaire's recently introduced 10Gb Ethernet line board and 4Gbps Fibre Channel storage router, customers can introduce unified fabrics to their data centers that take advantage of the highest-performance InfiniBand, Ethernet, and storage available on the market today. The Grid Director ISR 2004 features up to 96 ports of full 20Gbps InfiniBand connectivity and nanosecond latencies to enable high-performance applications to run on distributed server, network, and storage resources. The switch provides reliable packet delivery with ultra-low error rates that ensure jobs run to completion and eliminates performance-robbing packet drops, retransmissions, and fabric downtime. The Grid Director ISR 2004 will be available in February.

PHYSICAL INFRASTRUCTURE

■ **Leviton** has announced a series of UPSes. There are nine products, which belong to Leviton's Pro, Sine, and Online Series families of UPS products. Leviton's products now include models with extra VA power capacities and a variety of features. The products are aimed at 300 to 3,000VA and feature more outlets and a USB interface. Leviton has also added UPS monitoring, VA settings, and a smaller footprint.

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■ **RLE Technologies** announced F1000 and F3400, standalone Falcon F-Series systems that enable the remote environmental monitoring of critical operating parameters via embedded firmware. The F1000 and F3400 handle the data collection, alarm reporting, and multiple concurrent communication media. The F-Series systems allow for plug-and-play integration with up to eight RLE SeaHawk leak detection systems via Modbus connectivity. Additionally, the F-Series systems include real-time, Web-based monitoring; integration with NMS (via SNMP); and support for IP surveillance camera links. Both the F1000 and F3400 accommodate up to four analog and four digital (dry contact) or thermistor signals. The F3400 allows for an additional 24 digital inputs. The inputs can monitor simple contact closure signals, such as summary alarms, thermistor temperature sensors, or analog inputs.

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■ **StarTech** is targeting its SV1115IPEXT Server Remote Control, a KVM control over IP device, at companies with branch locations. The device supports USB and PS/2 connectivity. Administrators can use the SV1115IPEXT to monitor servers over a LAN or the Internet. It features SSH support and SSL encryption, as well as a built-in configurable firewall. The device offers 16-bit color and a three-port USB hub, supports drive emulation, and has a built-in on-screen display. The SV1115IPEXT is available for $769.

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■ **Winsted's** Sit/Stand option adds more versatility to its popular Digital Desks with adjustable legs that allow users to sit or stand for optimum comfort and productivity. Large wrap-around graphite laminate work surfaces maximize space. The monitor riser ensures proper viewing positions for LCD, CRT, and plasma monitors and helps provide additional workspace. An overall ergonomic design keeps keyboards, mice, tablets, and other tools within easy reach. A full line of accessories is available, including keyboard trays, power outlets, hanging rackmount cabinets, task lights, speaker shelves, and CPU mounts, as well as wire and cable management options.

SECURITY

■ Untrusted hosts in unmanaged environments require tight security, and a joint offering from **AEP Networks** and **BeCrypt** can provide it. A combination of BeCrypt's Trusted Client bootable OS USB device and AEP Networks' AEP SmartGate application layer can provide secure access management and encryption for risky connections.

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■ **CA's** IAM modular identity and access management system is now available in version r12. CA IAM r12 (a major upgrade, according to the company) offers better security for new SOA architectures, automates regulatory compliance and governance controls, allows IAM extension across the enterprise, and supports IPv6 and FIPS PUB 140-2. CA SOA Security Manager r12 is the first phase of the new system to be rolled out; others will follow.

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■ **Cisco** has released the NAC (Network Admission Control) Guest Server and a Secure Guest service addition to its existing Cisco NAC services. The Secure Guest service enables organizations to manage guest network access, such as to customers, suppliers, or partners, while granting secure, flexible network access to visiting users. The Cisco NAC Guest Server can operate with the Cisco NAC Appliance or the Cisco Wireless LAN Controller and allows authorized employees to provision guest accounts and grant access in a secure manner. The Cisco NAC Guest Server records the entire process, including a detailed history of guests accessing the corporate network. The server can deliver reports to offer security management on an ongoing basis and for audit purposes.

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■ **Cloakware** released CSPM (Cloakware Server Password Manager) 3.3, a version of the SAPM (Shared Account Password Management) tool. CSPM integrates with multiple technology platforms to streamline the privileged and application-to-application password management process. CSPM 3.3 offers further support for the Microsoft Platform, as well as Hardware Security

Product ✏ Releases

Modules for FIPS compliance. Other enhancements in CSPM 3.3 include a CSPM Client, which allows the CSPM to connect with a secondary server, and CSPM Client Polling to support the removal of hard-coded passwords from client-server applications. Additionally, the CSPM 3.3 allows the CSPM Client to run on AS/400, and a Target Connector for Cisco IOS 12.2 lets customers manage another class of passwords with CSPM.

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■ **Gemalto** and **Lexar Media** introduced the SEG (Smart Enterprise Guardian), a USB device that natively incorporates industry standards for protecting digital identities and sensitive documents. The SEG combines Gemalto's .NET-based solution and Lexar's hardware-based memory encryption technology to provide secure mobility for SMEs and enterprises. The SEG offers a user interface and requires no software setup. Customers can access their enterprise intranet, transfer sensitive files, and exchange confidential emails from any computer. Data encryption is transparent for employees, and the SEG is interoperable with existing IT infrastructures. The SEG also uses the digital identification capabilities supported natively in Windows Vista to help ensure data integrity and security.

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■ GlobalSCAPE HS-PCI (High Security-PCI), an application designed to meet or exceed industry security best practices for data transfer and storage, is now available from **GlobalSCAPE**. Features of GlobalSCAPE HS-PCI include protecting data in transit or at rest, controlling access to data, and ensuring ongoing PCI DSS compliance. The application is available for $5,490.

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■ **Global Technology Associates** has released GB Commander 2.0, which the company says is the core of its GTA Firewall Control Center, providing administration and monitoring of GTA Firewall UTM products running over a distributed network. This version has been completely redesigned and includes enhanced firewall administration tools for individuals and groups, remote system software updates, security policy management, and firewall status charts. Additionally, Commander 2.0 uses GTA Reporting Suite to offer more than 100 summary reports and charts, which are created using GTA firewall log data. GB Commander 2.0's three components include Firewall Control Center Server, GB Commander 2.0 Database Backend, and GB Commander 2.0 Client (a platform-independent Java-based tool). The release is free to current owners, and evaluation copies are available.

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■ **IBM** has announced IBM Rational AppScan, software designed to help users guard their organizations from Web application security attacks. With this updated version, IBM Rational AppScan can discover, verify, and report on application security risks. New reporting methods for security auditors is one of the updated features, along with the ability to allow a larger role for IT professionals to participate in and drive critical Web application security testing. Scan Expert and State Inducer have been added to the IBM Rational AppScan, which expand the availability to run scans so IT personnel, software developers, and testers are capable of running successful scans while at the same time also adding new features to assist security professionals.

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■ **Novell** has introduced improvements to SecureLogin, its single sign-on solution. SecureLogin has added support for Windows Vista, increased authentication capabilities, simpler administration abilities, and broadened application support.

SecureLogin customers obtain access to network and Web resources with just one secure login. Novell SecureLogin offers users a complete, integrated identity and security management stack for supporting IT compliance, risk management, and governance requirements when used in conjunction with Novell Identity Manager, Novell Access Manager, and Novell Sentinel.

Novell has also produced an identity management solution, the Novell Identity Manager Roles Based Provisioning Module. By decreasing the complication and cost of identity and security management, IT managers can set up access to resources based on role membership within an organization. Resources include computer applications, telephone systems, and building security systems. Departments, jobs, or the particular roles given to a person will manage the permissions, lessening the amount of IT administration required to add, delete, or preserve system users' access rights. Organizations that operate under high security can be sure that access rights for role memberships are controlled properly for internal and external compliance purposes.

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■ **RedCannon Security** is targeting SMEs with its KeyPoint Data Leak Prevention Kit. The FIPS-based kit features Lexar Lightening USB sticks that have RedCannon KeyPoint Solo Vault. The software provides military-grade data encryption. The drive includes KeyPoint Port Control, which ensures that only authorized devices are used on the company's desktop and network ports. KeyPoint Control has an interface that lets administrators define policies and can whitelist specific USB devices. The kit is sold in blocks of 25, which include the flash drives and software.

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■ **Stonesoft** has announced details of its firewall, VPN, and IPS (Intrusion Prevention System) products supporting IPv6, expected for release in Q2 next year. Stonesoft CEO Ilkka Hiidenheimo stated, "The IPv6 era is beginning, and we are ready to help our customers seamlessly migrate to this next-generation protocol, especially since our StoneGate solutions are built on Linux, which recognizes IPv6 traffic today." He added, "Stonesoft sees great promise in the future of IPv6. StoneGate solutions will allow our customers globally to ensure the security of their IPv6 traffic and benefit from the added reliability and stability that are the hallmarks of IPv6." IPv6 will increase the number of available addresses for Internet devices, plus add security, QoS, and auto-configuration features.

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■ **StoredIQ** is targeting its eDiscovery Partners with its eDiscovery appliance, which lets partners, who may need to work on time-sensitive projects without being able to leave the client's location, have access to data collection, filtering, and topology mapping. The appliance features ruggedized construction, two Intel Xeon quad-core processors, and six 750GB removable hard drives. It supports precollection preview features so legal professionals can verify the accuracy of data. It also offers parallel workstation collection for multiple computers. Its rolling production support lets the device output files as they are being harvested. According to StoredIQ, its Intelligent Collection methodology lets the device harvest the smallest data set that is legally defensible.

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■ **Symantec** announced the Symantec Healthcare Provider Solution, composed of products, services, and best practices to help healthcare providers protect and manage their critical infrastructure and ensure vital patient information is protected and accessible. Through this offering, Symantec is

Product Releases

helping healthcare customers protect interconnections, mitigate security risk, manage data, automate compliance, expedite legal discovery, and prevent data loss. With Symantec Healthcare Provider Solution, Symantec is helping healthcare providers protect critical endpoints (workstations, servers, databases, mobile devices), enforce security policy, and monitor and report access to systems for compliance with internal policies and regulations. The Veritas storage software solutions provide customers with storage management, backup and recovery, and archiving technologies. Symantec also helps customers automate key IT compliance processes by ensuring coverage of external mandates through written policy creation, dissemination, acceptance tracking, and exception management. Finally, the Symantec Healthcare Industry Solution helps providers reduce the cost of infrastructure and administering the messaging system, while also preventing leaks of confidential patient information.

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■ **Total Tech** announced the availability of its patent-pending Secure Office Managed Web filtering and Web security offering that provides enterprise-class Web security and filtering technology to businesses without the need to invest in computer hardware, software, or IT services. Powered by technology from Websense, Secure Office brings proven Web-filtering technology to small and medium-sized enterprises. Available as a managed service from Total Tech, Secure Office can get users up and running within minutes, and there is no large URL database download to the server or on end users' machines. The Secure Office database consists of more than 30 million URLs updated daily, adding new URLs while removing dead links. With its Web-based user interface, businesses can quickly manage which Web filtering policies are active and running. Secure Office also offers granular reporting to help businesses track Internet use and dangerous or undesirable Web surfing.

SERVERS

■ **Dell** introduced servers with claims of performance superiority. The four-socket, 4U PowerEdge R900 is the company's fastest server ever in SPECjbb testing, Dell says. The server also beat 2-node Sun and HP rivals in SPECjAppServer2004, according to the company. Dell also has updated the PowerEdge 1950, 2950, and 2900 for greater performance and energy efficiency.

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■ **HP** has announced the HP Cluster Platform Workgroup System, a high-performance computing platform the company says was designed to help midsized enterprises compete more effectively and without the hassle, complexity, and expense usually associated with enterprise-level systems. The platform was built on HP's BladeSystem c3000, which delivers nearly a teraflop of computer power. HP says the system only requires two square feet of floor space, making it ideal for HPC applications in CAE (computer-aided engineering); oil and gas; financial services; and life and material sciences environments. HP has also introduced the midsized Solution Blocks, which are aimed at material science and CAE applications, and a rack server for midsized HPC customers called the HP ProLiant DL160 G5, which is expected for Q1 next year.

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■ **Supermicro** has announced a number of product lines based on the Intel 5100 (San Clemente) chipset with DDR2 memory. The motherboards, servers, and workstations will run on the quad-core Intel Xeon 5400 series (Harpertown) and dual-core Intel Xeon 5200 series (Wolfdale-DP) processors. Designed for energy efficiency, performance, and cost savings, other devices based on the Intel 5100 are the X7DCU motherboard and the 6015C-M3, 6015C-MT, 6015C-U(R), and 6025C-U(R) servers.

Supermicro has also released a line of single-processor server boards based on the Intel 3210/3200 chipset. In all, there are 15 new server boards that support the Intel Xeon 3000 series processors, including quad-core and dual-core 45nm processors.

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■ The Sun Netra multicore and multithreaded 10Gb ATCA portfolio, announced by **Sun Microsystems**, is a new product suite that includes the Sun Netra CP3000 series blade servers powered by UltraSPARC T2 and AMD Opteron processors, in addition to the Sun Netra CP3240 10 GbE ATCA switch. The servers run on the Solaris 10 operating system and feature eight DIMM sockets for 32GB configurations and AdvancedRTM (Rear Transition Module) I/O. Reportedly, there are applications in development for the servers by ISVs.

STORAGE

■ **AmeriVault** released RestartIT-VDR, an advanced disaster recovery service targeted at SMEs that want to protect mission-critical business systems from disaster. Also released is RestartIT-HA, the continuity version. The RestartIT-VDR moves an image of the server hard drive to AmeriVault's server environment so that it can be quickly restored to a virtual machine. The RestartIT-HA helps businesses that need continuous uptime. The real-time replication service offers manual and scheduled failovers. The RestartIT-VDR and RestartIT-HA will be available before the end of the year.

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■ **ATTO Technology** has announced details concerning the development of 8Gb Fibre Channel technology product solutions. To fill the demand for media-rich entertainment, the company says the 8Gb products will allow for running such applications as 2K and 4K film; multiple, complex layers of uncompressed real-time effects; and high-definition video and audio editing. The new 8Gb Fibre Channel products will include the company's Advanced Data Streaming technology, which provides controlled acceleration of large and small blocks of data for improved I/O performance. The products will also have multiple OS, port, and driver options to ensure they are backward-compatible. ATTO will begin shipping 8Gb Fibre Channel products in mid-2008.

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■ The 3.5-inch 4Gb Fibre Channel E-Disk Altima E3F4FL is an SSD (solid-state drive) from **Bitmicro Networks**. It's intended for OLTP (online transaction processing), streaming video on demand, medical imaging, data mining, and all sorts of other important high-bandwidth uses in the enterprise, military, science, and industrial realms. The drive comes in capacities up to 1.6TB with sustained transfer rates of more than 230MBps and 55,000 IOPS.
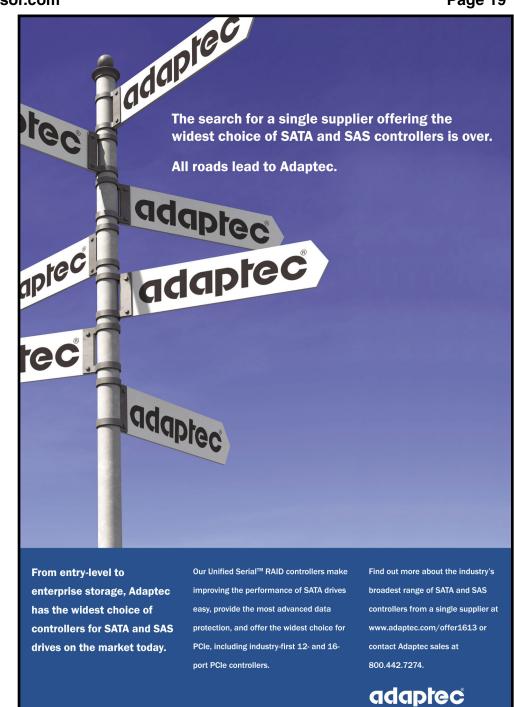
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Product ✏ Releases

■ **EMC** announced that EMC NetWorker will integrate with System Center Data Protection Manager 2007 to provide customers with a data protection solution capable of supporting both Windows and non-Windows environments. System Center Data Protection Manager 2007 delivers continuous data protection for Microsoft Windows applications and file servers, and it includes an integrated secondary disk and tape solution on the Data Protection Manager server. EMC NetWorker will provide backup and restore functions for System Center Data Protection Manager 2007 server. The combination provides customers with a unified backup solution residing on heterogeneous computing and application environments. EMC added enterprise data protection capabilities by offering tested and documented best practices for using EMC CLARiiON networked storage systems with DPM 2007.

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■ **IBM** has released TSM (Tivoli Storage Manager) version 5.5, an enterprise data protection software designed to assist organizations in increasing productivity, enhancing application availability, and improving information and data security. TSM's centralized, policy-based management includes the ability to handle data on many forms of storage. Data Redundancy is lessened with the IBM N series and NetApp A-SIS (Advanced Single Instance Store), along with network bandwidth and storage resource consumption. TSM boosts data security by improving encryption and key management for TSM clients. Also, TSM improves Microsoft Windows application coverage, takes an integrated approach to protecting VMware environments, and advances scalability and performance.
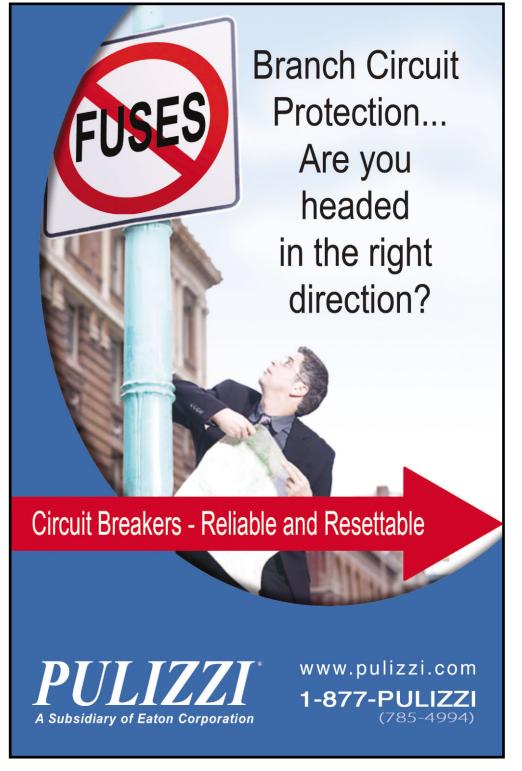
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■ **NetApp** announced two switches to aid in storage networking, the MDS 9134 Multiservice Modular Switch and the MDS 9222i Multilayer Fabric Switch. NetApp also announced a new multiprotocol module, the 18/4 Multiservice Module. These products offer interoperable multiprotocol SAN routing and SAN extension over IP.

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■ The InfiniteStorage NEXIS 9000 NAS is now available from **SGI**. The file-based storage system is designed for high performance and greater data throughput RDMA (remote direct-memory access) over InfiniBand. InfiniBand, 10 Gigabit Ethernet, and Gigabit Ethernet are all incorporated into the device and are designed to simplify administration. SGI Appliance Manager software is included with the InfiniteStorage NEXIS 9000 NAS, which ranges from 3TB with a 2U platform to almost half a petabyte of storage.

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■ **Western Digital** announced its environmentally friendly, energy-conscious GP (GreenPower) family of WD enterprise hard drive products. The WD RE2 GP family offers capacities of 500GB, 750GB, and 1TB. Designed for the high-capacity enterprise market, WD RE2 drives are reliability-rated at 1.2 million hours MTBF in high-duty cycle environments. The WD RE2-GP hard drives offer massive capacity with significant power savings and lower total cost of ownership compared to other competitive enterprise-class drives. Each WD RE2-GP hard drive consumes an average of four to five watts less than competitive hard drives. By WD estimates, under typical workloads, the WD RE2-GP drives will save more than $10 per drive per year in electricity costs. A large data center with 10,000 drives can save $100,000 in annual energy costs.

OPINIONS
INFO-TECH • INSIGHT

Virtualization Won't Deliver Us From Ad-Hockery

Virtualization of x86 hardware has enormous potential for server consolidation, energy savings, availability/recoverability, and generally doing more stuff with fewer boxes. Here's something virtualization won't do: It won't forestall the need to move from the ad hoc to more sophisticated management processes. In fact, virtualization forces the issue on smaller enterprises sooner than would happen otherwise.

Once the hardware and software foundation is in place, creating and deploying virtual machines is fast and easy. But the question is not whether the technology is ready for primetime. It is. The question is whether the enterprise has the organizational maturity and skill to effectively manage a virtual infrastructure.

You've Got To Start Somewhere

Virtual machines are a boon to ad-hockery. Back in the '90s, we were attracted to the relative speed, ease, and relatively low cost of x86 Windows server deployment. Virtual machine deployment makes even that look slow, expensive, and cumbersome—weeks of acquisition, configuration, and testing shrinks into minutes.

Like everyone who deployed x86 servers back then, I had to endure the criticism of big iron buddies in the back office. Sure, these boxes were cheap and cheerful, but the problem was they could not scale. Deploying one might be a quick and easy way to address a processing need, but what would we do when there were 100 or 1,000 boxes to manage?

The criticism was well founded and foreshadowed issues of acquisition being only a fraction of TCO, as well as server sprawl, underutilization, and vulnerabilities in security/accountability. But it was a good idea at the time. In fact, it was a multibillion dollar good idea, as SMEs, doing things they would not have done otherwise, were the engines of economic growth in the '90s.

Alas, small businesses become larger businesses. Single deployments become server farms. Chaotic and unmanaged growth leads to waste—wasted capital expenditures but also a waste of space and electricity. The enterprise must move beyond ad hoc and reactive deployment to ongoing efficient management of infrastructure.

Now along comes x86 server virtualization and the incredible shrinking data center. Where there were more than 100 boxes, now there might be half a dozen. Where there was the waste of 15% server and storage utilization, now utilization rates are up to 75%.

Carpeting Over Complexity

It appears all good, except that those 100 server instances have merely been swept under a big rug called virtualization. If not efficiently managed, server sprawl will become virtual server sprawl. Without careful capacity planning and resource management, service levels cannot be guaranteed, and security and accountability cannot be ensured; waste will again rear its ugly head.

Ease of deployment only increases the likelihood of unmitigated virtual server sprawl. Further, the tipping point for developing regular and repeatable management processes is going to happen a lot earlier. Ad hoc methods might work for jockeying 20 physical servers. But virtualizing them puts them in a black box. The enterprise should first have formal, repeatable processes for automating tasks, such as security and patch management, and secondly be able to adapt those processes to virtual environments.

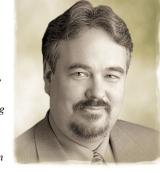Provisioning servers and maintaining service levels in a virtual infrastructure will demand more sophisticated management approaches. With ad hoc physical server deployment, these issues tend to be addressed by the hardware purchasing decision. How much processor power, memory, and storage the server gets will be provided by what's in the physical server box being acquired.

Virtual machines share resources, such as processing, memory, and bandwidth. Provisioning servers and maintaining ongoing performance levels will require management processes that do a more granular accounting of processing, memory, storage, and network bandwidth as consumables. That sounds a lot like chargeback. I have yet to meet an IT manager who was enthusiastic about "charge-back" schemes. Why? Management complexity.

For Smaller Enterprises

This will be a particularly pressing issue for smaller and younger enterprises. They are more likely to still be in an early ad hoc stage of infrastructure management maturity.

Virtualization will soon be embedded in new commodity server purchases as built-in hypervisor capability. Virtualization vendors have discovered the SME market and are attacking it. This is great for prices and packages, but smaller enterprises need to know what they are getting into.

SME IT shops be warned. Ubiquitous virtualization is coming whether you like it or not. Chances are you will like virtualization because it makes ad hoc server deployment easier and faster. But if you find more formal infrastructure management to be something for the big shops, or too complex for you, you're storing up a future heartache. **P**

Send your comments to infotech@processor.com

JOHN SLOAN

AUTHOR
John Sloan is a senior research analyst at Info-Tech Research Group. He has more than 15 years of experience as a technology writer, as well as experience in corporate communication, Web site development, and electronic publishing. His research interests include electronic publishing and communications (including e-learning), disaster recovery planning, desktop computing, and Web application development platforms. Sloan holds a master's degree in journalism from the University of Western Ontario.

PRODUCT OF THE WEEK

Know Your Environment

Sensatronics Senturion Guards Against Data Center Outages

by Sue Hildreth

THE MORE YOU KNOW about the state of your data center equipment, the easier it is to catch impending problems before they cause major failures. Rising temperatures, high humidity, and water leaks can all bring a server down fast.

Monitoring all aspects of the data center environment is the premise behind the Sensatronics Senturion Environmental Monitor (www.sensatronics.com). The Senturion can monitor a range of environmental factors, from humidity to smoke. It passes that information along via an email alert to the dashboard of the Sensatronics Intellipool Network Monitor or any SNMP-capable monitoring application or via audio and visual alerts on the box itself.

Environmental monitors can provide data on the conditions inside a server, inside a rack, or in the data center or networking closet. By monitoring various points in the room and rack and looking at multiple environmental factors, it's possible to get an accurate picture of what is happening in a remote data center, says Curt Staniewski, the sales and marketing manager for Sensatronics, based in Bow, N.H.

"Things differ from room to room, rack to rack, even if they're identically configured," says Staniewski. "These monitors bridge the gap between what's happening in the ambient air and at the chip level. You want to measure in multiple points to check

cooling efficiencies and make sure you don't have heat buildup in separate sections."

Different environments have different monitoring needs, he notes: "In the South, organizations may be more concerned about humidity, while those in the North may be worried about dryness. If it's too dry, you can get sparks. If it's too humid, you can have corrosion."

Support For Multiple Probes & Software

The Senturion comes with onboard monitors to measure temperature, humidity, and ambient lighting. The temperature and humidity monitors are located on wings that help to prevent the heat generated by the monitor itself from influencing the readings.

Additional probes are also available for the Senturion, which comes with eight RJ12 ports to accommodate extra probes. Some of the probes that can be added include Cryo Temperature Probes (for measuring very low temperatures), Heavy Duty Temperature Probes (for outdoor or harsh environments), High Temperature probes, Wetness Probes, and Power Presence Probes. Staniewski says that probes are also available for smoke detection and motion detection.

Installation takes just 15 minutes, according to Sensatronics, and involves connecting the power cord and Ethernet, logging on to the unit's internal Web server via the IP address displayed on the front LCD of the Senturion, inputting the email addresses for alerts, and setting thresholds.

The Senturion monitor works with the Intellipool Network Monitor, a Web-based application that provides remote monitoring capabilities for the temperature probes, as well as for network performance, bandwidth and traffic, routers, mail servers, system log files, and server load data. It collects and displays data on a graphical Web dashboard.

The Senturion also interoperates with a number of third-party packages, including ActiveXperts's Network Monitor (www.activexperts.com), NRG Global's BizWatch (www.nrgglobal.com), IPSentry's Network Monitoring Software (www.ipsentry.com), and other network monitoring applications that have an SNMP or XML interface.

Monitoring: A Step Toward Management

Gathering information about the data center environment is the first step toward preventing outages and reducing energy costs, says Staniewski.

"Often they don't pay attention to how efficiently they can cool the racks. They may not look at how they can configure the devices and spread the load. With a temperature monitor, you can see how this rack compares with that rack and how you can redistribute your load through virtualization or reconfiguring the way the vents are placed, where the exhaust is," he explains. "This gives them some visibility so they can say 'Here's what we can do to reduce costs.' For not a lot of money, they can get some actionable data to help improve their efficiency."

Michael Petrino, vice president at PTS Data Center Solutions (www.ptsdcs.com), in Franklin Lakes, N.J., would agree. "It's important to compile trending data for all environmental parameters" in order to understand how changes in the environment affect the performance of the equipment and to prevent equipment failure, he notes.

"Whether you're a 20-person company or a 20,000-person company, you need that information; it will adversely affect the organization, regardless of its size, if a switch or other equipment goes down," says Petrino. "Maintaining a suitable environment for IT is arguably the No. 1 problem facing data center managers today."

One of the key features of any monitor, he notes, is the ability to set thresholds for various factors and to instruct the software to send out automated alerts when those thresholds are exceeded. An automated system reduces the chance of human error, he says.

"If the sensors are running and everything's working, you will have fewer people interacting with the environment, which means hopefully it will be more stable because some 80% of all data center outages and errors occur because of human error," says Petrino. "So if you can remove humans from the environment, you can hopefully cut down on those errors." P

THE SENSATRONICS SENTURION

- **1.9-inch color LCD:** Integrated front-panel LCD allows users to check the status of probes without the need for logging in to the Web interface.
- **Sensor wing:** Integrated remote sensors monitor the environmental conditions of your equipment, not the Senturion.
- **Built-in cable management:** Designed to make running external probes a cinch, the guides provide order to the cables while creating a high-tech feel.
- **RJ12 connections for external probes:** Sometimes users require additional probes. Senturion is capable of accommodating up to eight additional probes for placement throughout the room or facility.
- **Front panel visual status indicator:** Users can see if any attached probes are alarming. The unit's front-panel lighting will be either blue for normal or flashing red when there is an issue.
- **Local auditory alerts:** Incorporated into the front panel is a local auditory alarm that sounds if a configured probe enters an alarm state.
- **1U rack-mountable:** Senturion is designed to fit a standard 1U rack and has a slightly protruding front panel for easy access to probe attachments.

SOURCE: SENSATRONICS

PRODUCT OF THE WEEK

SENSATRONICS SENTURION ENVIRONMENTAL MONITOR

Description: Self-contained 1U environmental monitor that requires no external software but can interoperate with many network monitoring applications; monitors for temperature, humidity, and lighting; and has eight ports to support additional probes for smoke, water, and other factors

Interesting feature: The integrated temperature and humidity sensors are located on protruding wings to prevent heat generated by the Senturion monitor from influencing the readings.

(800) 633-1033
www.sensatronics.com

Improving IT Performance

Where's An SME To Begin?

by Robyn Weisman

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SAYING THAT EVERYONE wants to improve his organization's IT performance is a no-brainer. Unfortunately, you can't wave a magic wand and command your servers to take up less space, become more energy-efficient, and improve their processing speed by a factor of eight.

However, you can begin to take certain issues into account in order to get your SME on the way to improving the network's overall performance, while at the same time minimizing the complications that could result when such steps are taken without a clear plan.

The Benefits (& Challenges) Of Virtualization

Joe Wagner, senior vice president and general manager of systems and resource management at Novell (www.novell.com), recommends virtualization as a way to consolidate physical servers and make better use of the servers that you already have. "In the data center, the generic implementation has been to put an individual physical server for every type of workload," Wagner says.

For example, Microsoft (www.microsoft .com) typically has required an individual server dedicated solely to Exchange or Windows, and its practice is not unique. "By providing virtualization, you can collect several of those workloads; collapse three of them onto one server, thereby eliminating either three physical servers or the requirements for these servers; get additional capacity out of the existing data center assets; and defer capital and operating expenses," Wagner says.

For his part, Andrew Bird, vice president of marketing at systems management technology provider Configuresoft (www.configuresoft.com), concurs that virtualization offers obvious advantages to IT performance because users are able to reduce the cost of hardware. At the same time, however, virtualization creates a challenge for IT because it removes some of the barriers that used to be in place. Before virtualization, even buying a new server acted as a control because you would have to go out and buy it or commission it, build the operating system onto it, and put the applications on top of that OS.

"Now when you pop up a new virtual machine riding on an existing set of hardware, the existing controls start to disappear—and it doesn't just happen in ones and twos," Bird explains.

The Nature Of "Virtual Sprawl"

Because virtualization allows IT the ability to compress several virtual servers within a single physical server, "virtual sprawl," as Bird terms it, can threaten to cause network gridlock, much in the way its physical counterpart does.

Bird speaks from experience. "About a year ago, as Configuresoft's developers wanted to drive out more machines more quickly doing what we're asking them to do—deliver more product to us more quickly—and very rapidly we had to rein in and gain control over that virtual sprawl," Bird recounts.

Unless an IT department already has standardized infrastructure and security policies in place for virtual as well as physical machines, it risks having each machine—be it virtual or physical—move from the development to production environment in any number of states. "They [may not be] provisioned correctly into those environments, so perhaps they haven't got antivirus on [some of the machines] or the sort of security policy that is deployed right across the environment is not in play in that system," Bird says.

According to Bird, the very nature of virtual sprawl challenges the sort of security policies originally put in place just to handle physical servers. And they no longer can be controlled with reactive measures because this new heterogeneous environment is significantly more dynamic than the old one.

Understand What's Out There

Therefore, SME IT departments need to start looking for ways to automate processes across the entire environment. Increasingly, SMEs are adopting practices such as ITIL (Information Technology Infrastructure Library) that were once the preserve of large enterprises, although even simple things such as deploying virtual security policies or standardized help desk processes across the environment can make a difference, says Bird.

In addition, configuration and change management also assume a critical role in making a mixed environment an effective

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The Biggest Pain Points Are Really One Big Pain Point

According to Andrew Bird, vice president of marketing at Configuresoft (www.configuresoft.com), the biggest "pain points" for an SME seeking to improve its IT performance is ultimately one really big pain point. "Applications that are meant to be supported are unavailable [to the organization]," Bird says. This happens, he says, on two layers: The first is that the applications are not available at all, and the second is that the applications perform poorly.

Bird says that garden-variety change most frequently is the cause of the problem. The situation can be as basic as the system going down for whatever reason one evening. As a result, an employee calls up someone in IT who is working evenings and weekends to fix it. The IT professional fixes it outside of the change process; meanwhile, no one else knows the change has been made. That professional fixed the system to work right there and then, but 12 hours later, the change he made ends up having an impact on another part of the system.

"That is why people have a change approval process in place and why you see so many companies moving to formalize a change process and put into place a change approval board," Bird says.

PRODUCTS *AT WORK*
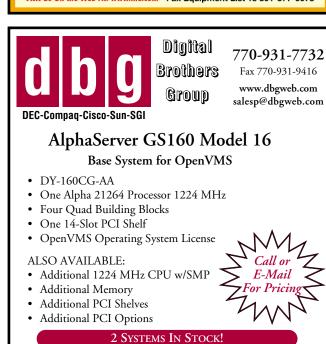
Alloy Software Is Makita's Answer

Help Desk Software Is Extensible & Helps Regional Offices

by John Brandon

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IN THE ENTERPRISE, help is always a phone call away. IT staff have the most robust tools and phone system and can usually track support calls effortlessly. In smaller companies, those luxuries often do not exist. For Makita USA (www.makita.com), a pro power tools company, the problem was not necessarily size; the global company employs more than 9,000 people worldwide. The problem was that the organizational structure with many regional offices across the United States did not lend itself to a central help center.

"I have been with Makita just over six months, and when I came onboard, there was no help desk software," says Alex Oliva, the IT director. "Users would just call a central phone number, and there were two help desk personnel who could track calls on a notepad and Excel spreadsheets. Now we have an optimal help desk system; most problems are solved in the same day or within 24 hours."

Makita chose Alloy Software's Navigator (www.alloy-software.com) partly because of the easy user interface, partly because the support agent who helped the company with presales calls was a good install were major factors in solidifying my decision. We were looking for a package that did not force you to use one interface and is customizable. No one package can meet all your needs, so we wanted to make sure we could add modules and custom development." Alloy Software uses

an open interface that can be customized and can be extended with the use of additional databases.

Pricing Flexibility, Excellent Presales Support

Another important criterion for Oliva has to do with pricing structures. Most help desk systems charge for each user who accesses a tracking portal, but Alloy provided a corporate pricing plan. For Oliva, it was important that the help desk support regional offices that are scattered throughout the country without charging each office for access to the help desk system. "Alloy is priced for customers like me who have more people outside the building than inside," he says.

good customer service, an example that Oliva wanted to follow.

In terms of the actual installation, Oliva says he had no problems. There was a minor glitch involving a database that was not compatible, but he says it was an internal issue. Even then, he says Alloy was able to work with him on the phone to troubleshoot the problem and find a solution. One important point Oliva makes has to do with the customer service: He was never put on hold for long periods, and the agent did not have to call back repeatedly with suggestions. Oliva and the agent troubleshot over the phone, which revealed to Oliva that Alloy Software knows customer service and troubleshooting.

After the initial installation, Oliva wanted to make sure there was a single sign-on for regional offices. He was able to configure the software to work with Active Directory. In fact, once a user is authenticated in Windows, he says, there is no need to log in to the help desk tracking software because of the link between the two authentications. "Our users didn't have to remember a different username and password for the new help desk system, which just made the process easier," he notes.

The installation and training time took about two weeks, says Oliva. There were no major issues with integration into existing systems in the data center, end-user support with the Web portal, or any issues with training support personnel on how to use it. "They [Makita's users] took to it like fish to water," he says. "The Web portal is so simple. Our users understood how it worked right away. I don't recall getting any calls from users learning the portal."

Process Integration

Oliva notes that Makita did not have any other technical challenges, but it did need to work through some issues in business continuity. It had to integrate business rules into the system where a help desk request involving new expenditures had to be approved by two managers. For example, if an end user requested a laptop replacement, a senior manager and a finance officer might need to approve it, and there are scenarios where an executive must make the final approval.

Oliva did not want to burden executives who needed to approve these requests by having them log in to and learn the help desk software, so Makita and Alloy built a separate Web portal that interfaces with Alloy and allows the executives to approve or deny a request. The approval portal even works with the executives' email as a link that they can click to access the portal. "That process took an extra week and was the biggest hurdle we had," Oliva says.

When asked about whether he would change the process of installing Alloy Navigator, Oliva says he couldn't imagine changing anything. He says it was impeccable timing because Makita chose the help desk software and was able to install it just a few weeks before a major ERP (Enterprise Resource Planning) rollout, one of the biggest rollouts in the company's history.

"It was good timing when we implemented it, and it was just a coincidence, but with any major software rollout there will be lots of questions," Oliva says. "Alloy provides a beautiful interface for people to use and communicate over help desk issues."

Future Plans

Oliva says the Navigator help desk software has been an easy rollout, and he now plans to start thinking about a "phase two" where he installs Alloy's separate auditing package that he purchased along with the help desk system. He wanted to make sure users were comfortable with the new help desk system first.

"We now take the help desk for granted as part of our daily lives," he says. "I just can't give it enough praise. Customer service is an art form of sorts, and Alloy knows the meaning of that." P

> Makita's IT director Alex Oliva says Navigator has been an easy rollout, and he now plans to start thinking about "phase two" where he installs Alloy's separate auditing package.

example of expert-level phone support, and partly because it is extensible with other modules and custom development, explains Oliva.

"I was doing research on help desk systems and came across Alloy Software," says Oliva. "I was just about to choose another package and decided to set up a demo. The customer service I received during the demo stages and the ease of

Oliva explains more about how the presales process helped him make the decision to choose Alloy: The agent he spoke to was knowledgeable and friendly. Oliva asked questions about whether the help desk could tie into an existing Access database, and the agent knew the answer. For other support issues, the agent operated a demo remotely, set up a Webinar to show how the software worked, and generally showed

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Alloy Software Navigator

Help desk and auditing software that includes features for incident and problem management, change management, hardware and software asset management, and software licensing compliance

"We now take the help desk for granted as part of our daily lives," says Alex Oliva, the IT director at Makita USA (www.makita.com). "I just can't give it enough praise. Customer service is an art form of sorts, and Alloy knows the meaning of that."

(800) 810-9020
www.alloy-software.com

Tools For Tracking Virtual Traffic

Virtualization Brings A New Set Of Issues To Small & Medium-Sized Enterprizes

by Sandra Kay Miller

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IT'S HARD TO FIX what you can't see.

IT and data center managers are finding out there are real headaches associated with virtual traffic as organizations squeeze more resources out of their existing investments through server virtualization.

Tracking down problems in the virtual realm can be difficult on a number of fronts. "One of the biggest weaknesses we saw out there in terms of the way that people are managing the data centers today is that the tools that were available for virtual servers were only really looking at technical summary data of what was actually going on," explains Jay Botelho, director of product management for WildPackets (www.wildpackets.com), a Walnut Creek, Calif.,-based software company providing network and application analysis tools.

For example, many of the virtual analysis tools currently available rely on data from MIBs (management information bases), such as those used with SNMP (Simple Network Management Protocol), to look for problems occurring on the virtual servers. According to Botelho, this methodology is fraught with problems. "One is that the data is not in real time because the data has to get put into these MIBs. Two, even though the data in MIBs and SNMP is standard, the data is really particular to specific applications or hardware nodes that people are looking at, so they may or may not be capturing all the information they're really interested in. And number three, it's still only a summary of information," he says.

Even when a problem is reported within the summaries, such as slow response time, there is little information as to why the response time is slow.

Srinivas Ramanathan, president and CEO of eG Innovations (www.eginnovations.com), a virtual environment monitoring solution, believes that identifying where and why problems occur in virtual environments is one of the key challenges. "IT is evolving into a multitier infrastructure. It used to be clients talking to a server, but now it's one application talking to another application to deliver complete functionality," he notes. "If I didn't take virtualization into account, I may not get to the real root of the problem. What has worked in the nonvirtual world no longer works in the virtual world because of the additional layers of complexity."

> ## "IT is evolving into a multitier infrastructure. It used to be clients talking to a server, but now it's one application talking to another application to deliver complete functionality."
>
> *-eG Innovations' Srinivas Ramanathan*

In an effort to effectively handle more complexity, many traffic analysis tools can put a heavy load on the server. However, Botelho points out that only capturing packets won't bog down systems; additional features (storage and real-time analysis) do.

Botelho further explains that when traffic is monitored in a virtual environment, often only the packets between a few applications and host servers are involved and not the entire link into the data center.

Available Options

OmniPeek is WildPackets' portable network analysis tool. "One of the things that we realized we could do with OmniPeek is that we could use some of the facilities that are already available in virtual servers because all of them have virtual network adapters," says Botelho. That means that WildPackets is able to run an instance of network analysis software on each one of the virtual servers. Traditionally, Omni-Peek would capture and examine packets based on a hardware network interface. "We are able to take advantage of these software-oriented network adapters that still exist in virtual servers like VMware and are able to see the packets as they cross that virtual network adapter, so we're still able to see the same types of things like you would with a hardware adapter," notes Botelho.

This means deep packet inspection can provide valuable information, especially with applications. "You're going to find payloads that have important error messages in them like 'can't connect to the database' or 'wrong password,'" says Botelho.

Botelho lists the inability to actually see the traffic itself as the biggest pain point seen from WildPackets' network-based perspective, but by examining virtual traffic from the network analysis standpoint, he doesn't consider the task complicated. "You just want to be able to get at the data and then have the appropriate tool to look at it. You need something that can not only get the data but look at the data from an application perspective," he notes.

Further exacerbating the challenge of following virtual traffic is the ability to monitor entire virtual machines. Ramanathan explains that not just packets move individually, but entire virtual machines migrate between physical machines depending upon available resources such as CPU and memory. "Tracking this movement adds another layer of complexity upon monitoring virtual traffic. From the perspective of diagnosis, it's a huge problem because you have multiple tiers, machines sharing resources and machines being completely dynamic," Ramanathan says.

To tame the complexity of virtual environments, the eG Monitor for VMware Infrastructures has been added to eG's Enterprise Suite that provides monitoring and management for virtual environments.

Virtual machines themselves already have a fair amount of diagnostics for traffic and performance analysis but have yet to build in the diagnostics to specifically look at the application-to-application performance, such as people connecting to the Oracle database or accessing the SAP application. "I think that pain point comes into play at the application layer and not at the networking layer. It's nice to see there are products out there that let customers capture all the way down to the packet level for application analysis in the virtual realm," says Botelho.

Traffic analysis at the packet requires highly skilled IT personnel, but eG sees an opportunity in the enterprise by making virtual traffic and performance monitoring easier. Ramanathan has found that pushing routine monitoring tasks out to lower-skilled IT people, such as the help desk, results in a broader perspective. "They don't want to get into the nitty-gritty, such as CPU management, but they need tools for a virtual infrastructure that can help them figure out where bottlenecks are occurring without spending endless hours troubleshooting," he says. P

WildPackets' Five Pain Points With Virtual Traffic

- Virtual traffic never crosses any network segment, making it difficult to capture and analyze.
- Little or no visibility into the traffic among virtual servers.
- IT/data center managers find it difficult to "tune" virtual applications.
- Statistics-based network performance data offers only summaries—not actual error messages within the packets.
- Many analysis utilities increase CPU and bandwidth usage.

Tools For Monitoring Virtual Environments

Product	Features
eG VM Monitor www.eginnovations.com	Provides a comprehensive end-to-end solution for monitoring and managing the performance of virtual IT infrastructures
WildPackets OmniPeek www.wildpackets.com	A distributed network analysis solution for troubleshooting and optimizing both physical and virtual enterprise networks and applications
Wireshark (formerly Ethereal) Open Source www.wireshark.org	Multiplatform product that supports hundreds of protocols; offers live capture, offline analysis, and rich VoIP analysis

Data Protection Management: A Good Fit For SMEs

Size Is Not A Factor In Whether SMEs Can Benefit

by Julie Ritzer Ross

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BACKUP FAILURE AND PERFORMANCE rank at the top of the list of issues that continue to perplex storage administrators on a daily basis. For many, DPM (data protection management) programs that yield users a better understanding of their backup and recovery environments are one way to deal with these concerns, as well as with others. DPM products provide reports on backup operations across an enterprise. They report across multiple vendors' backup products and can alert management to backup failures that put data protection at risk and may infringe upon compliance regulations. They can also balance backup loads across drives in a tape library.

While some SMEs have expressed uncertainty about whether DPM solutions are as appropriate for them as they are for larger operations, size, in this case, seemingly doesn't matter. "DPM is absolutely a fit for any company that has more than a few computers," says Greg Schulz, founder and senior analyst at StorageIO. "Even small companies store a huge amount of valuable data, and the right DPM solution allows that data to be managed proactively, not reactively."

Arun Taneja, founder and consulting analyst at Taneja Group, corroborates Schulz's comments, adding that regulations, including Sarbanes-Oxley, the Gramm-Leach-Bliley Act, Basel II, and HIPAA, "all have varying focuses on data protection that ultimately require enterprises of all sizes to be assured of protection, not just confident. Compliance-driven assurance must be documented and auditable to protect enterprises from fines and penalties, and DPM is the catalyst."

DPM 101

For the most part, DPM solutions are evolving from performing basic backup status reporting to more in-depth analysis. For example, Bocada (www.bocada.com) now offers Bocada Enterprise 5, which incorporates a media module designed to provide insight into drive and library utilization. The end result, says Nancy Hurley, vice president of marketing and business development at Bocada, is better load balancing, reduction of unnecessary capital expenditures, and risk reduction through identification of media that must be migrated for regulatory or other purposes.

Occupancy reports produced by the program identify the amount of capacity required to support current data protection policies, tracking the quantity of copies being stored on both disk and tape for the protection of a server, application, or department. Access to this information can help users determine if data is over or under protected. "Previously, the only way to obtain this information was through manually exporting application data into a spreadsheet, which was tedious and time-consuming," Hurley states.

Meanwhile, APTARE (www.aptare.com) has released an updated version of its APTARE StorageConsole product. APTARE StorageConsole 6.0 incorporates agentless support for EMC NetWorker (software.emc.com) and Symantec Backup Exec (www.symantec.com) backup software, as well as IBM Tivoli Storage Manager (www.ibm.com).

"Regardless of which backup software they use, storage administrators all suffer from the same problem—a lack of centralized visibility into their backup environment to diagnose and resolve problems," says Rick Clark, CEO of APTARE. "Whether it's due to a strategic initiative or a result of organic growth, many companies find themselves using and managing backup software from multiple vendors. APTARE StorageConsole continues to provide a centralized portal of their backup environment independent of the underlying backup software."

Yet another player, WysDM Software (www.wysdm.com), focuses on deep, agentless, enterprise-wide collection and reporting upon information assets and protection processes. Its core product, WysDM, can collect information from applications, file servers, disk arrays, backup media systems, network components, backup software, and nearly every other component in an enterprise infrastructure. Using that data, WysDM correlates business-defined protec-

> **While some SMEs have expressed uncertainty about whether DPM solutions are as appropriate for them as they are for larger operations, size, in this case, seemingly doesn't matter.**

tion levels with protection activities, yielding deeper visibility into the state of data protection for an entire enterprise, says Alan Atkinson, WysDM Software's CEO.

"Concurrently, the product delivers rich trending and analysis surrounding utilization and performance, which lets organizations proactively plan and manage their data protection," Atkinson adds. He notes that WysDM's solution is built around three key components that extract, correlate, and report upon enterprise assets.

DPM Considerations

Given the complexity of today's IT environments, functionalities to consider in a DPM solution include the ability to link data protection activities to application and business function and service requirements, including inter-system and application dependencies. "DPM solutions need to be able to collect and analyze data from multiple IT resources for a multidimensional view, including different types of data protection technologies," Schulz notes.

DPM solutions should also be configured to identify and assist with leveraging opportunities to improve backup performance and capacity utilization. This capability should work with and enhance other IRM (information resource management) activities so that users can plan for future server, storage, network, media, power, and cooling needs.

Additional DPM capabilities should encompass the ability to identify orphan storage and data that need to be backed up and protected, as well as support for compliance audits to ensure that protected data are complete and recoverable in a timely manner to meet service objectives. "Ease of use and customization features, including wizard-based user interfaces and report generation, along with standard reports and dashboards for real-time or historical perspective and event notification have become basic, 'must-have' functionality for effective DPM solutions," Schulz concludes.

Comparison Of DPM Tool Features

	APTARE Storage Console Backup Manager	Bocada Enterprise	Symantec Veritas Backup Reporter	Tek-Tools Software BackupProfiler	WysDM Software WysDM for Backup
	www.aptare.com	www.bocada.com	www.symantec.com	www.tek-tools.com	www.wysdm.com
Multiprotection reporting and dashboards	Yes	Yes	Yes	Yes	Yes
Basic backup event and media usage reporting	Yes	Yes	Yes	Yes	Yes
Cross IT technology domain analysis engine	--	--	--	--	Yes
Business and application awareness	--	--	--	--	--
Replication management	--	--	--	--	Yes
Specific area of focus	Backup event and activity reporting	Backup activity reporting	Backup activity reporting	IT activity and profile reporting	DPM and IRM event correlation analysis

SOURCE: STORAGEIO

Improving IT Performance

one. "Simply understanding what you have out there is an increasing challenge," Bird says. "Just getting visibility into each and every machine you have across your environment, whether those are servers or desktops, understanding which applications are running on those servers or desktops, which data is being used, who has permission to use that data, and so forth is critical."

Once you have transparency across your environment, you can set up processes to ensure that each physical and virtual machine within this environment is secure, standardized, and compliant with HIPAA, Sarbanes-Oxley, or whichever other regulations your business needs to comply with, Bird says.

But Bird cautions against assuming that all changes to an environment are inherently good changes. "You really want to understand that this change ultimately made the end impact you wanted it to make," Bird says.

Bird says that to increase the likelihood that a change affects your business, you need to see the impact of this change against particular machine types within your environment, as well as against geographic locations and against applications, among other criteria.

Taking these measures allows you to start determining which changes are good and which are bad. "I would prefer much more good than bad changes at the end of the day. That will allow me to start optimizing our environment," Bird says.

> **SME IT departments need to start looking for ways to automate processes across the entire environment.**

WHAT'S HAPPENING

LANDesk Defines Industry Innovation

Offering IT Management Products For More Than 20 Years

by Chris A. MacKinnon

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WHAT DO YOU GET when you roll systems management, security management, and process management into one company? You get a global company that's been around since 1985, creating innovative technologies and products for enterprise IT management. LANDesk Software (www.landesk.com) is an IT technology pioneer that has a proven track record of helping businesses improve efficiency and reduce the costs of computer ownership and life cycle management. Steve Workman, vice president of product management for LANDesk, says the wheels never stop turning for the Utah-based systems, security, and process management solution provider.

Industry Status

According to Workman, the past few years have seen a push toward the convergence of systems and security management solutions. He says LANDesk pioneered this convergence back in 2004, and it is now being mirrored by many in the industry. He also notes that the integrated security management market is continuing to grow rapidly because of the new threats constantly being introduced. We have seen a strong demand for host-based intrusion prevention solutions that address zero-day threats. As an answer to this demand, LANDesk has empowered customers with its HIPS (Host Intrusion Prevention System), which thwarts attacks and rootkits using application control.

Workman says the traditional model of software distribution is also changing with the ever-growing popularity of application virtualization. He says customer feedback has been extremely positive in regards to

LANDesk's application virtualization solution that enables software applications to run on nearly any desktop without ever being installed. LANDesk Application Virtualization eliminates conflicts between applications.

The ability to automate business processes, Workman notes, is also becoming increasingly more important, as organizations look to IT as a way to increase bottom-line business value. He explains, "LANDesk is making a significant investment in process automation because the company believes that it represents a major growth opportunity that will eventually become as significant to [the] systems management market as security has. LANDesk Process Manager 4.0 ensures the consistent and repeatable execution of common IT tasks and includes an online resource center with a number of predefined process templates that are customizable."

Workman says LANDesk Process Manager 4.0 was designed to be easy to use and will help any department in an organization meet compliance needs and organizational objectives. He notes, "LANDesk is the first systems and security management company to offer universal manageability of workflow process. Process automation is becoming a significant trend, and you will see more from LANDesk in the coming months in this area."

Industry Challenges

In Workman's opinion, systems, security, and process management's ultimate challenge is the fact that devices that IT professionals are trying to manage are constantly being changed by end users. He elaborates, "Because of this, it's vital for IT managers to ensure that they can get a clear view of the assets they're responsible for, as well as have the ability to update them without having to touch each one. They also need to have a strong security solution in place to protect assets that in many cases are geographically dispersed. Simplifying and automating as many processes as possible will also enable the ability to analyze and troubleshoot problems on a moment's notice." Workman says over time, the line between systems, security, and process management will blur—meaning that IT organizations should be looking at ways to expand their view of the entire network and take more of a service approach.

Workman says another growing challenge is the increasing number of remote and mobile workers that are outside the firewall of the corporate LAN. He says this poses a huge threat to an organization's network because traditional systems management software can only actively manage assets connected inside the corporate firewall. "To solve this problem," Workman says, "LANDesk launched the LANDesk Management Gateway Appliance. This industry-first solution extends management beyond the corporate firewall and actively manages remote devices securely through the Internet—without the need for costly VPN connections or punching holes in the firewall. This way, systems can be patched and securely managed and updated before they come back onto the corporate network."

The most unique aspect of the LANDesk technology, according to Workman, is that all the products are tightly integrated and accessible from a single console in the LANDesk Management Suite. He explains, "A single console vs. multiple consoles saves time and resources. LANDesk makes it easy for IT mangers to see everything from what types of software are running on all devices at all times to the inventory of devices and the ability to see which need patches or updates and which do not." Workman says having access to all the information and tools in one view differentiates LANDesk from other vendors that offer point product solutions and from vendors with products that are not truly integrated.

Standing Out

So what else is happening in the space where LANDesk competes? Workman says the systems management, security management, and process management spaces are all moving in the same direction toward integration. He says all vendors competing in these areas recognize this fact. However, he says that is where the similarities end. He explains, "Vendors today offer varying degrees of integration, and LANDesk stands out among the crowd because of the many systems and security management features that are integrated within a single desktop agent and the tight integration with the rest of their product portfolio. Neither Altiris, Novell, nor Microsoft offer the same depth of integration and breadth of features."

Workman says LANDesk will continue to chart a path of leadership as the company helps enable customers to evolve their IT operations from a technology focus to a process management focus that is aligned with bottom-line business objectives. "Moving forward," he concludes, "all of our flagship solutions will have greater automated process management capabilities built in. As previously mentioned, we feel that process management is the immediate future and that LANDesk is helping IT customers make this happen." This year, LANDesk launched an industry first with the LANDesk Management Gateway Appliance to manage remote computers through the Internet. ℙ

THREE QUESTIONS

Get More For Your Money

Horizon Datacom Offers Quality Refurbished Equipment

by Will Kelly

MANY SME IT DEPARTMENTS handle IT requirements that nearly strangle their budgets if they deploy new equipment. Such times require a creative eye to budgeting and, most of all, the comfort level to implement refurbished networking hardware to satisfy the requirements.

However, some organizations have trepidations when considering refurbished equipment. This is where Horizon Datacom Solutions (horizondatacom.com) comes into the equation—the company specializes in selling refurbished equipment and has the technical capacity to design and support full solutions for its customers.

■ **What are the biggest IT-related issues facing today's small to mid-sized enterprise?**

According to Vicky Nosbisch, president of Horizon Datacom Solutions, "Small to midsized businesses are in a continual struggle to implement the exciting new technologies that are designed and priced for large enterprises. What do you do when the CEO insists on implementing VoIP or PoE or sophisticated wireless networking without providing the budget? The squeeze is on. I can't tell you how often I hear from customers that they simply don't have the budgets to accomplish what their organizations are asking them to do."

■ **What should *Processor* readers know about your company's products?**

"Horizon Datacom Solutions does three things: We buy, refurbish, and sell network hardware. We help organizations of all sizes in buying their excess network hardware and selling them reliable routers, switches, wireless gear, IP phones, and more at a fraction of the retail cost," Nosbisch says. "And we can help them implement it all, as well. Anyone can visit our Web site, and if you see something for sale, it's sitting on a shelf and ready to ship."

Horizon Datacom Solutions aims to be easy to work with. According to Nosbisch, "Others make you 'call for a quote.' We don't make you jump through hoops; we tell you the price up front. And what many people don't know is this: You can save 40 to 60% when buying refurbished network hardware with our standard one-year guarantee."

In addition, experienced Cisco-certified sales representatives and sales engineers support every step of Horizon Datacom's sales cycle.

"We've significantly raised the bar over your standard secondary market vendor who can only quote you a price on a piece of equipment that they may or may not have in stock. Our staff works closely with customers to provide complete solutions. We develop a deep working knowledge of our customers' networks, projects, and requirements and provide them with more than just great value on refurbished equipment. That all means quality, customer support, and a competitive price," Nosbisch says.

■ **What makes your company unique?**

A unique differentiator for Horizon Datacom Solutions is the fact that the company provides full life cycle solutions support for the products it sells and can back it up with solid business and technology experience. "Anyone can sell you a used piece of equipment," Nosbisch notes. "Horizon Datacom has been in business over 12 years, and our customers know they can count on us when they buy either a single piece of refurbished network equipment or when working with us to help design and equip an entire data center. We pride ourselves on our high customer service and relationships with our customers."